

2020 International Joint Conference on **Neural Networks (IJCNN)**



-  **Welcome Message**
-  **Table of Contents**
-  **Technical Papers**
-  **Authors Index**

2020 CONFERENCE **PROCEEDINGS**

Please visit website for more information!
wcci2020.org

ISBN: 978-1-7281-6926-2
Part Number: CFP20IJS-ART

© Copyright 2020 IEEE. Personal use of this material is permitted. However, permission to reprint/republish this material for advertising or promotional purposes or for creating new collective works for resale or redistribution to servers or lists, or to use any copyrighted component of this work in other work must be obtained from the IEEE.

Technical Support



Phone: +1 352 872 5544
cdyer@conferencecatalysts.com

© 2020 IEEE

2020 International Joint Conference on Neural Networks (IJCNN)

© 2020 IEEE. Personal use of this material is permitted. However, permission to reprint/republish this material for advertising or promotional purposes or for creating new collective works for resale or redistribution to servers or lists, or to reuse any copyrighted component of this work in other works must be obtained from the IEEE.

Additional copies may be ordered from:

IEEE Service Center

445 Hoes Lane

Piscataway, NJ 08855-1331 USA

+1 800 678 IEEE (+1 800 678 4333)

+1 732 981 1393

+1 732 981 9667 (FAX)

email: customer-service@ieee.org

Copyright and Reprint Permission: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923. For reprint or republication permission, email to IEEE Copyrights Manager at pubs-permissions@ieee.org. All rights reserved. Copyright ©2020 by IEEE.

IEEE Catalog Number: CFP20IJS-ART

ISBN: 978-1-7281-6926-2

TABLE OF CONTENTS

WELCOME MESSAGE FROM THE CHAIR	4
SUNDAY, JULY 19	5
MONDAY, JULY 20	6
TUESDAY, JULY 21	28
WEDNESDAY, JULY 22	51
THURSDAY, JULY 23	74
FRIDAY, JULY 24	96
AUTHOR INDEX	118

WELCOME MESSAGE FROM THE CHAIR

On behalf of the Organizing Committee, it is my greatest pleasure to welcome you to the 2020 International Joint Conference on Neural Networks (IJCNN) held virtually, as part of the IEEE World Congress on Computational Intelligence (IEEE WCCI) 2020. IJCNN 2020 is jointly organized by the IEEE Computational Intelligence Society (CIS) and the International Neural Network Society (INNS). For IJCNN 2020 (and when WCCI is organized in even-numbered years) IEEE CIS is the lead society and financial sponsor. IJCNN 2020 is the major event in the field of neural networks and learning systems, covering all topics in the field from theory to applications.

IJCNN provides a forum for researchers, students and professionals in the field of Neural Network and Learning Systems. The meeting is a unique opportunity to present our research to other colleagues and exchange the latest advances in theories, technologies and practices. It is tremendous opportunity also to know what the trending topics are, the current state-of-the-art and the main applications of Neural Networks and Learning Systems.

IJCNN 2020 accepted 1134 papers for inclusion in the conference program at an acceptance rate of 57%. Out of this, 608 papers are being presented in oral sessions and 526 in poster sessions. The largest contributors by country are China (29.7%), USA (15.7%), UK (15.2%), Brazil (10.1%), Australia (8.8%), Japan (7.8%) and India (7.1%). The country assigned to a paper was the country from which its first author came.

The program of IJCNN 2020 reflects a rich variety of topics: Deep Learning, Extreme Learning Machines, Feed forward NNs and Supervised Learning, Online and Incremental Learning, Spiking Neural Networks, Unsupervised Learning and Clustering, ADP and Reinforcement Learning, Recurrent NNs and Reservoir Networks, Concept Drift, ML Methods Robust to Large Outliers, Complex Valued NNs, Neural Models and Computation, Memory and Sensory Systems, Semi-supervised Learning and Neuromorphic Hardware. Likewise, a large number of papers deal with a great variety of applications.

I would like to express my gratitude to all the authors who submitted their work, to the program committee and reviewers, the organizers of 55 Special Sessions as well as to all the participants of IJCNN 2020. Special thanks to the General Co-Chairs: Amir Hussain, Marios Polycarpou, Xin Yao; to the IJCNN 2020 Technical Chairs: Peter Erdi, Daniel Levine, Seiichi Ozawa, Chrisina Jayne, and Minh Lee, and to all WCCI 2020 chairs. Last but not least, I would like to thank to the plenary speakers – Alexander Gorban, Kunihiko Fukushima, Steve Grossberg, Michael Bronstein and Johan Suykens.

I would also like to acknowledge the support of the IEEE Computational Intelligence Society (CIS), and the International Neural Network Society (INNS).

Asim Roy, IJCNN 2020 Conference Chair

SUNDAY, JULY 19

Workshop I-W1: Workshop: Sentic Computing

Sunday, July 19, 11:30AM-1:30PM, Room: IJCNN Workshop, Chair: Erik Cambria

11:30AM Deciphering Public Opinion of Nuclear Energy on Twitter [#21074]

Khatua Aparup, Erik Cambria, Ho Shirley and Na JinCheon
Nanyang Technological University, Singapore

11:50AM Constrained Manifold Learning for Videos [#21233]

Iti Chaturvedi and Jin Xiang Choy
James Cook University, Australia; Nanyang Technological University, Singapore

12:10PM New Avenues in Mobile Tourism [#21736]

Guerreiro Claudia, Erik Cambria and Nguyen Hien T
Nanyang Technological University, Singapore; Ho Chi Minh City University of Food Industry,
Viet Nam

12:30PM An hardware-aware image polarity detector enhanced with visual attention [#21934]

Edoardo Ragusa, Tommaso Apicella, Christian Gianoglio, Rodolfo Zunino and Paolo
Gastaldo
DITEN, University of genoa, Italy; UDITEN, University of Genoa, Italy

12:50PM SENSE: a Student Performance Quantifier using Sentiment Analysis [#21964]

Johanna Watkins, Marcos Fabietti and Mufti Mahmud
Dept. of Computing & Technology, Nottingham Trent University, Clifton Campus, NG11 8NS
- Nottingham, United Kingdom

MONDAY, JULY 20

Session I-R1: Feedforward neural networks

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 1, Chair: Nabin Sharma, Ajith Abraham

3:30PM New Insights on Learning Rules for Hopfield Networks: Memory and Objective Function Minimisation [#20209]

Pavel Tolmachev and Jonathan Manton
The University of Melbourne, Australia

3:50PM Should I Stay or Should I Grow? A Dynamic Self-Governed Growth for Determining Hidden Layer Size in a Multilayer Perceptron [#20971]

Matt Ross, Nareg Berberian and Chartier Sylvain
University of Ottawa, Canada

4:10PM NodeDrop: A Method for Finding Sufficient Network Architecture Size [#20689]

Louis Jensen, Jacob Harer and Chin Sang
Boston University, United States

4:30PM Crowd Counting from Unmanned Aerial Vehicles with Fully-Convolutional Neural Networks [#20348]

Giovanna Castellano, Ciro Castiello, Corrado Mencar and Gennaro Vessio
Department of Computer Science, University of Bari, Italy

4:50PM Nucleus Neural Network: A Data-driven Self-organized Architecture [#20225]

Jia Liu, Haibo He, Maoguo Gong and Wenhua Zhang
Nanjing University of Science and Technology, China; University of Rhode Island, United States; Xidian University, China

5:10PM RAPDARTS: Resource-Aware Progressive Differentiable Architecture Search [#20005]

Sam Green, Craig Vineyard, Ryan Helinski and Cetin Koc
Semiotic AI, United States; Sandia National Laboratories, United States; University of California, Santa Barbara, United States

Special Session I-SS1: Randomization-Based Deep and Shallow Learning Algorithms

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 2, Chair: P. N. Suganthan

3:30PM Data-Driven Randomized Learning of Feedforward Neural Networks [#20081]

Grzegorz Dudek
Czestochowa University of Technology, Poland

3:50PM Multi-Label classifier based on Kernel Random Vector Functional Link Network [#20722]

Vikas Chauhan, Aruna Tiwari and ShivVrat Arya
Indian Institute of Technology Indore, India; The University of Texas at Dallas, United States

4:10PM A Non-iterative Radial Basis Function Based Quick Convolutional Neural Network [#21006]

Toshi Sinha and Brijesh Verma
Central Queensland University, Australia

4:30PM A Low Complexity Decentralized Neural Net with Centralized Equivalence using Layer-wise Learning [#21449]

Xinyue Liang, Alireza M. Javid, Mikael Skoglund and Saikat Chatterjee
KTH Royal Institute of Technology, Sweden

- 4:50PM Exploring the correlation between random convolutional architectures and the trained equivalent [#21741]**
 Nicholas Evans, Jo Plested and Tom Gedeon
 Australian National University, Australia
- 5:10PM Regularized robust fuzzy least squares twin support vector machine for class imbalance learning [#20756]**
 M.A. Ganaie, M. Tanveer and P.N. Suganthan
 Indian Institute of Technology Indore, India; NTU Singapore, Singapore

Special Session I-SS22: Learning Representations for Structured Data

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 3, Chair: Davide Bacciu

- 3:30PM BiG-Transformer: Integrating Hierarchical Features for Transformer via Bipartite Graph [#20845]**
 Xiaobo Shu, Mengge Xue, Yanzeng Li, Zhenyu Zhang and Tingwen Liu
 Institute of Information Engineering, Chinese Academy of Sciences. Beijing, China, China
- 3:50PM Exploiting Cliques for Granular Computing-based Graph Classification [#21082]**
 Luca Baldini, Alessio Martino and Antonello Rizzi
 University of Rome "La Sapienza", Italy
- 4:10PM Let the Margin SlidE+- for Knowledge Graph Embeddings via a Correntropy Objective Function [#21516]**
 Mojtaba Nayyeri, Xiaotian Zhou, Sahar Vahdati, Reza Izanloo, Hamed Shariat Yazdi and Jens Lehmann
 University of Bonn, Germany; University of Oxford, United Kingdom; Ferdowsi University of Mashhad, Iran; Fraunhofer IAIS, Bonn, German, Germany
- 4:30PM Correlated Mixed Membership Modeling for Somatic Mutations [#21737]**
 Rahul Mehta and Muge Karaman
 University of Illinois at Chicago, United States
- 4:50PM Ring Reservoir Neural Networks for Graphs [#21783]**
 Claudio Gallicchio and Alessio Micheli
 University of Pisa, Italy
- 5:10PM Generalising Recursive Neural Models by Tensor Decomposition [#21358]**
 Daniele Castellana and Davide Bacciu
 University of Pisa, Italy

Special Session I-SS59A: Artificial Intelligence and Advanced Machine Learning for Biomedical Signal Processing

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 4, Chair: Larbi Boubchir

- 3:30PM Towards Automatic EEG Signal Denoising by Quality Metric Optimization [#21603]**
 Arthur Caldas, Eanes Pereira, Niago Leite, Arthur Oliveira and Ellen Lucena
 Federal University of Campina Grande, Brazil
- 3:50PM Active Stacking for Heart Rate Estimation [#20298]**
 Dongrui Wu, Chenfeng Guo, Feifei Liu and Chengyu Liu
 Huazhong University of Science & Technology, China; Active Stacking for Heart Rate Estimation, China; Southeast University, China

4:10PM A Hybrid CNN-LSTM Architecture for Detection of Coronary Artery Disease from ECG [#20753]

Rohan Banerjee, Avik Ghose and Kayapanda Muthana Mandana
Tata Consultancy Services, India; Fortis Hospitals, India

4:30PM Evaluation criteria for closed-loop adaptive dynamic discrete-continuous brain-computer interfaces: clinical study case with tetraplegic patient. [#20854]

Felix Martel, Tamara Dupuy, Alexandre Moly, Stephan Chabardes and Tetiana Aksenova
Univ. Grenoble Alpes, CEA, LETI, Clinatec, F-38000 Grenoble, France; Centre Hospitalier Universitaire Grenoble Alpes, 38700, La Tronche, France

4:50PM Reconstructing Natural Scenes from fMRI Patterns using BigBiGAN [#21307]

Milad Mozafari, Leila Reddy and Rufin VanRullen
CerCo, CNRS, France; CerCo, CNRS and ANITI, Universite de Toulouse, France

5:10PM A Novel Blending Hilbert -Kolmogorov Approach for Epileptic Seizures detection [#21546]

Ahmed Adda and Hadjira Benoudnine
University of Abdelhmaid Ibn Badis, Mostagnem, Algeria, Algeria; University of Abdelhmaid Ibn Badis, Mostagnem, Algeria

Session I-SBP: Student Best Paper Award

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 5, Chair: Peter Erdi

3:30PM NurbsNet: A Nurbs approach for 3d object recognition [#20177]

Felix Escalona, Diego Viejo, Robert Fisher and Miguel Cazorla
Universidad de Alicante, Spain; University of Edinburgh, United Kingdom

3:50PM Human Pose Estimation Based In-Home Lower Body Rehabilitation System [#21585]

Ying Li, Chenxi Wang, Yu Cao, Benyuan Liu, Joanna Tan and Yan Luo
University of Massachusetts Lowell, United States; Encompass Rehabilitation Hospital, United States

4:10PM Graph Convolutional Networks for Target-oriented Opinion Words Extraction with Adversarial Training [#21311]

Yan Zhou, Wei Jiang, Po Song, Yipeng Su, Tao Guo, Jizhong Han and Songlin Hu
Institute of Information Engineering, Chinese Academy of Sciences, China; Department of Energy Internet, State Grid Corporation of China, China

4:30PM Passive Batch Injection Training Technique: Boosting Network Performance by Injecting Mini-Batches from a different Data Distribution [#20092]

Pravendra Singh, Pratik Mazumder and Vinay P. Namboodiri
Indian Institute of Technology Kanpur, India

4:50PM Online Knowledge Acquisition with the Selective Inherited Model [#20210]

Xiaocong Du, Shreyas Kolala Venkataramanaiah, Zheng Li, Jae-sun Seo, Frank Liu and Yu Cao
Arizona State University, United States; Oak Ridge National Lab, United States

Session I-R2: Supervised learning 1

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 6, Chair: Joana Costa, Deepak Ponvel Chermakani

3:30PM Improving Self-Adaptation For Multi-Sensor Activity Recognition with Active Learning [#21479]

Tuan Pham Minh, Daniel Kottke, Anna Tsarenko, Christian Gruhl and Bernhard Sick
University of Kassel, Germany

3:50PM A Novel way of Training a Neural Network with Reinforcement learning and without Back Propagation [#21930]

James Lindsay and Sidney Givigi
Royal Military College of Canada, Canada; Queen's University, Canada

4:10PM Triplet Loss for Knowledge Distillation [#21019]

Hideki Oki, Motoshi Abe, Jyunichi Miyao and Takio Kurita
Hiroshima University, Japan

4:30PM Improving Relation Classification by Incorporating Dependency and Semantic Information [#21322]

Kun Deng and Shaochun Wu
Shanghai University, China

4:50PM Deep Active Transfer Learning for Image Recognition [#21431]

Ankita Singh and Shayok Chakraborty
Florida State University, United States

5:10PM Wasserstein Exponential Kernels [#21540]

Henri De Plaen, Michael Fanuel and Johan A. K. Suykens
Department of Electrical Engineering, ESAT-STADIUS, KU Leuven, Belgium

Session I-R3: Neurodynamics

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Room 7, Chair: Hiroyuki Torikai

3:30PM A Novel Design Method of Multi-Compartment Soma-Dendrite-Spine Model having Nonlinear Asynchronous CA Dynamics and its Applications to STDP-based Learning and FPGA Implementation [#21028]

Masato Ishikawa and Hiroyuki Torikai
Hosei University, Japan

3:50PM A novel hardware-efficient CPG model based on asynchronous coupling of cellular automaton phase oscillators for a hexapod robot [#21023]

Kentaro Takeda and Hiroyuki Torikai
Hosei University, Japan

4:10PM Computational Study of Astroglial Calcium Homeostasis in a Semi-isolated Synaptic Cleft [#21357]

Marinus Toman, John Joseph Wade, Liam McDaid and Jim Harkin
Ulster University, Northern Ireland

4:30PM Multi-Task Learning for Efficient Diagnosis of ASD and ADHD using Resting-State fMRI Data [#20498]

Zhi-An Huang, Rui Liu and Kay Chen Tan
Department of Computer Science, City University of Hong Kong, Kowloon Tong, Hong Kong, China

4:50PM Solving Discrete Dynamic Nonlinear Equation System Using New-Type DTG Model With Occasionally-Singular Jacobian Matrix [#20321]

Binbin Qiu, Jinjin Guo, Xiaodong Li and Yunong Zhang
Sun Yat-sen University, China

Plenary Poster Session I-P1: Feedforward neural networks

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Poster Room 1, Chair: Abbas Khosravi

P101 Analytical Form of Fisher Information Matrix of Bipolar-Activation-Function-Based Multilayer Perceptrons [#20287]

Weili Guo, Liping Xie, Zhenyong Fu, Jianhui Guo, Guochen Pang and Jian Yang

1. PCA Lab, Key Lab of Intelligent Perception and Systems for High-Dimensional Information of Ministry of Education, and Jiangsu Key Lab of Image and Video Understanding for Social Security, School of Computer Science and Engineering, Nanjing University of China; Key Laboratory of Measurement and Control of CSE, Ministry of Education, School of Automation, Southeast University, Nanjing, P.R. China, China; PCA Lab, Key Lab of Intelligent Perception and Systems for High-Dimensional Information of Ministry of Education, and Jiangsu Key Lab of Image and Video Understanding for Social Security, School of Computer Science and Engineering, Nanjing University of S, China; School of Automation and Electrical Engineering, Linyi University, Linyi, P.R. China, China

P102 Multiple Instance Learning for Training Neural Networks under Label Noise [#21637]

Stefan Duffner and Christophe Garcia
LIRIS, University of Lyon, France

P103 Neural Rule Ensembles: Encoding Sparse Feature Interactions into Neural Networks [#20952]

Gitesh Dawer, Yangzi Guo, Sida Liu and Adrian Barbu
Apple Inc., United States; Florida State University, United States

P104 The Impact of Audio Input Representations on Neural Network based Music Transcription [#20527]

Kin Wai Cheuk, Agres Kat and Herremans Dorien
SUTD, Singapore; NUS, Singapore

P105 Detection of Obstructive Sleep Apnoea Using Features Extracted from Segmented Time-Series ECG Signals Using a One Dimensional Convolutional Neural Network [#21297]

Steven Thompson, Paul Fergus, Carl Chalmers and Denis Reilly
Liverpool John Moores University, United Kingdom

P106 Improving the Performance of Neural Networks with an Ensemble of Activation Functions [#21287]

Arijit Nandi, Nanda Dulal Jana and Swagatam Das
Department of Computer Science and Engineering, National Institute of Technology Durgapur-713209, India; ECS Unit, Indian Statistical Institute, Kolkata, India

P107 Loss Surface Modality of Feed-Forward Neural Network Architectures [#20111]

Anna Sergeevna Bosman, Andries Petrus Engelbrecht and Marde Helbig
University of Pretoria, South Africa; Stellenbosch University, South Africa; Griffith University, Australia

P108 An Adversarial Attack Detection Paradigm With Swarm Optimization [#20656]

Ayyaz-UI-Haq Qureshi, Hadi Larjani, Nhamoinesu Mtetwa, Mehdi Yousefi and Abbas Javed
Glasgow Caledonian University, Glasgow, United Kingdom; COMSATS University Islamabad, Lahore Campus, Pakistan

- P109 Learning traversability map of different robotic platforms for unstructured terrains path planning [#21109]**
Paolo Arena, Carmelo Fabrizio Blanco, Alessia Li Noce, Luca Patane' and Salvatore Taffara
University of Catania, Italy; University of Messina, Italy
- P110 Enhancing Neural Networks with Locality-Sensitive Clustering of Internal Representations [#20928]**
Richard McAllister and John Sheppard
Montana State University, United States
- P111 Toward Big Data Manipulation for Grape Harvest Time Prediction by Intervals' Numbers Techniques [#21935]**
V. G. Kaburlasos, E. Vrochidou, C. Lytridis, G. A. Papakostas, T. Pachidis, M. Manios, S. Mamalis, T. Merou, S. Koundouras, S. Theocharis, G. Siavalas, C. Sgouros and P. Kyriakidis
International Hellenic University (IHU), HUMAIN-Lab, Greece; International Hellenic University (IHU), School of Agricultural Biotechnology and Oenology, Greece; Euroaction, Thessaloniki, Greece; Ktima Pavlidis, Drama, Greece
- P112 Regression-based Music Emotion Prediction using Triplet Neural Networks [#20529]**
Kin Wai Cheuk, Yin-Jyun Luo, Balamurali B.T., Gemma Roig and Dorien Herremans
SUTD, Singapore; Goethe University Frankfurt am Main, Germany
- P113 Syntax-Informed Interactive Neural Machine Translation [#21805]**
Kamal Kumar Gupta, Rejwanul Haque, Asif Ekbal, Pushpak Bhattacharyya and Andy Way
Indian Institute of Technology Patna, India; Dublin City University, Ireland
- P114 Solving Raven's Progressive Matrices with Multi-Layer Relation Networks [#20872]**
Marius Jahrens and Thomas Martinetz
University of Luebeck, Germany
- P115 Quantum ensemble of trained classifiers [#20581]**
Ismael Araujo and Adenilton da Silva
Universidade Federal Rural de Pernambuco, Brazil; Universidade Federal de Pernambuco, Brazil
- P116 Approaches to Avoid Overfitting in a Quantum Perceptron [#21069]**
Fernando M De Paula Neto, Gustavo I S Filho and Claudio A. Monteiro
Centro de Informatica, Universidade Federal de Pernambuco, Brazil; Universidade Federal de Pernambuco, Brazil
- P117 Improved Polynomial Neural Networks with Normalised Activations [#20623]**
Mohit Goyal, Rajan Goyal and Brejesh Lall
University of Illinois at Urbana Champaign, United States; Indian Institute of Technology, Delhi, India
- P118 Software-Level Accuracy Using Stochastic Computing With Charge-Trap-Flash Based Weight Matrix [#21557]**
Varun Bhatt, Shalini Shrivastava, Tanmay Chavan and Udayan Ganguly
University of Alberta, Canada; Indian Institute of Technology Bombay, India
- P119 Learning representations in Bayesian Confidence Propagation neural networks [#21768]**
Naresh Balaji Ravichandran, Anders Lansner and Pawel Herman
KTH Royal Institute of Technology, Sweden; Stockholm University, KTH Royal Institute of Technology, Sweden
- P120 Estimating Minimum Operation Steps via Memory-based Recurrent Calculation Network [#20051]**
Lei Sha, Chen Shi, Qi Chen, Lintao Zhang and Houfeng Wang
Peking University, China; Microsoft Research, China

Plenary Poster Session I-P2: Applications of deep networks

Monday, July 20, 3:30PM-5:30PM, Room: IJCNN Poster Room 2, Chair: Jordina Barrena

- P301 Event Extraction via Extracting Triggers and Arguments Simultaneously and Matching [#20093]**
Qianlong Wang and Jiangtao Ren
Sun Yat-sen University, China
- P302 A Transfer Learning Method with Multi-feature Calibration for Building Identification [#20136]**
Jiafa Mao, Linlin Yu, Hui Yu, Yahong Hu and Weiguo Sheng
Zhejiang University of Technology, China; Hangzhou Normal University, China
- P303 Challenge Training to Simulate Inference in Machine Translation [#20315]**
Wenjie Lu, Jie Zhou, Leiying Zhou, Gongshen Liu and Quanhai Zhang
School of Electronic Information and Electrical Engineering, Shanghai Jiao Tong University, China
- P304 Unleashing the Potential of Attention Model for News Headline Generation [#20358]**
Yong Liao, Kui Meng, Jianshen Zhang and Gongshen Liu
Shanghai Jiao Tong University, China
- P305 Knowledge-guided Deep Reinforcement Learning for Interactive Recommendation [#20815]**
Xiacong Chen, Chaoran Huang, Lina Yao, Xianzhi Wang, Wei Liu and Wenjie Zhang
University of New South Wales, Australia; University of Technology Sydney, Australia
- P306 Are You a Risk Taker? Adversarial Learning of Asymmetric Cross-Domain Alignment for Risk Tolerance Prediction [#21016]**
Zhe Liu, Lina Yao, Xianzhi Wang, Lei Bai and Jake An
University of New South Wales, Australia; University of Technology Sydney, Australia; Raiz Investment, Australia
- P307 Towards end-to-end Cyberthreat Detection from Twitter using Multi-Task Learning [#21193]**
Nuno Dionisio, Fernando Alves, Pedro Ferreira and Alysson Bessani
LASIGE, Faculty of Sciences, University of Lisbon, Portugal
- P308 Deep Learning for Image-based Automatic Dial Meter Reading: Dataset and Baselines [#21658]**
Gabriel Salomon, Rayson Laroca and David Menotti
Federal University of Parana (UFPR), Brazil
- P309 Product Categorization by Title Using Deep Neural Networks as Feature Extractor [#21691]**
Leonardo S. Paulucio, Thiago M. Paixao, Rodrigo F. Berriel, Alberto F. De Souza, Claudine Badue and Thiago Oliveira-Santos
Universidade Federal do Espirito Santo (UFES), Brazil; Instituto Federal do Espirito Santo (IFES), Brazil
- P310 Emotion Detection using Periocular Region: A Cross-Dataset Study [#21821]**
Sai Narsi Reddy Donthi Reddy and Reza Derakhshani
University of Missouri at Kansas City, United States
- P311 Multi-Domain Dialogue State Tracking with Hierarchical Task Graph [#21842]**
Tianhao Shen and Xiaojie Wang
Beijing University of Posts and Telecommunications, China
- P312 Multi-Range Gated Graph Neural Network for Telecommunication Fraud Detection [#20430]**
Shuyun Ji, Jinglin Li, Quan Yuan and Jiawei Lu
Beijing University of Posts and Telecommunications, China

- P313 Deep Learning Techniques for Beef Cattle Body Weight Prediction [#21757]**
 Mikel Gjergji, Vanessa Weber, Luiz Silva, Rodrigo Gomes, Thiago de Araujo, Hemerson Pistori and Marco Alvarez
 University of Rhode Island, United States; Dom Bosco Catholic University, Brazil; Brazilian Agricultural Research Corporation, Brazil; Federal University of Ceara, Brazil
- P314 Using Self-Attention LSTMs to Enhance Observations in Goal Recognition [#20931]**
 Leonardo Amado, Gabriel Paludo Licks, Matheus Marcon, Ramon Fraga Pereira and Felipe Meneguzzi
 PUCRS, Brazil
- P315 Neural Reasoning, Fast and Slow, for Video Question Answering [#20141]**
 Thao Minh Le, Vuong Le, Svetha Venkatesh and Truyen Tran
 Deakin University, Australia
- P316 Phoneme based Domain Prediction for Language Model Adaptation [#21171]**
 Anmol Bhasin, Gaurav Mathur, Promod Yenigalla and Bharatram Natarajan
 Samsung R&D Institute, Bangalore India, India
- P317 TSCNN: A 3D Convolutional Activity Recognition Network Based on RFID RSSI [#20549]**
 Weiqing Huang, Yi Liu, Shaoyi Zhu, Siye Wang and Yanfang Zhang
 School of Computer and Information Technology, Beijing Jiaotong University; Institute of Information Engineering Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences, China
- P318 Penalty-based Sequence Generative Adversarial Networks with Enhanced Transformer for Text Generation [#20028]**
 Mingjun Duan and Yubai Li
 University of Electronic Science and Technology of China, China
- P319 Grammatical Error Detection with Self-Attention by Pairwise Training [#20396]**
 Quanbin Wang and Ying Tan
 Key Laboratory of Machine Perception (MOE) Department of Machine Intelligence, School of Electronics Engineering and Computer Science, China
- P320 A Novel Ensemble Representation Framework for Sentiment Classification [#20608]**
 Mengtao Sun, Ibrahim Hameed and Hao Wang
 Norwegian University of Sciences and Technology, Norway

Session I-R4: Deep neural networks

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 1, Chair: Baozhou Zhu, Zaid Al-Ars

- 5:45PM Improving Discrete Latent Representations With Differentiable Approximation Bridges [#20817]**
 Jason Ramapuram and Russ Webb
 University of Geneva, Switzerland; Apple, United States
- 6:05PM Meta-Path Generation Online for Heterogeneous Network Embedding [#20411]**
 Tao Liang and Jin Liu
 1. Institute of Information Engineering, Chinese Academy of Sciences. 2. School of Cyber Security, University of Chinese Academy of Sciences, China
- 6:25PM Efficient Search for the Number of Channels for Convolutional Neural Networks [#20102]**
 Hui Zhu, Zhulin An, Chuanguang Yang, Xiaolong Hu, Kaiqiang Xu and Yongjun Xu
 Institute of Computing Technology, Chinese Academy of Sciences, China

- 6:45PM Pruning Depthwise Separable Convolutions for MobileNet Compression [#21727]**
Cheng-Hao Tu, Jia-Hong Lee, Yi-Ming Chan and Chu-Song Chen
Institute of Information Science, Academia Sinica, Taiwan
- 7:05PM Sequential Analysis with Specified Confidence Level and Adaptive Convolutional Neural Networks in Image Recognition [#21101]**
Andrey Savchenko
National Research University Higher School of Economics, Russia
- 7:25PM NASB: Neural Architecture Search for Binary Convolutional Neural Networks [#20551]**
Baozhou Zhu, Zaid Al-Ars and Peter Hofstee
Delft University of Technology, Netherlands; IBM Systems, Netherlands

Special Session I-SS2: Data Driven Approach for Bio-medical and Healthcare

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 2, Chair: Mukesh Prasad, Paul Kennedy

- 5:45PM Early Detection of Parkinson Disease using Deep Neural Networks on Gait Dynamics [#21316]**
Lerina Aversano, Mario Luca Bernardi, Marta Cimitile and Riccardo Pecori
University of Sannio, Italy; Unitelma Sapienza University, Italy
- 6:05PM Universum least squares twin parametric-margin support vector machine [#20718]**
Bharat Richhariya and M. Tanveer
Indian Institute of Technology Indore, India
- 6:25PM Medical Formulation Recognition (MFR) using Deep Feature Learning and One Class SVM [#20924]**
Omar Kawi, Kathy Clawson, Paul Dunn, Daniel Knight, Jonathan Hodgson and Yonghong Peng
University of Sunderland, United Kingdom; Rokshaw Laboratories, United Kingdom; Manchester Metropolitan University, United Kingdom
- 6:45PM Lung Cancer Detection and Characterisation through Genomic and Radiomic Biomarkers [#21034]**
Luca Brunese, Francesco Mercaldo, Alfonso Reginelli and Antonella Santone
University of Molise, Italy; IIT-CNR, Italy; University of Campania, Italy
- 7:05PM Skin Lesion Analysis Toward Accurate Detection of Melanoma using Multistage Fully Connected Residual Network [#21681]**
Ghosia Shaukat, Saeeda Naz, Imran Razzak and Tariq Khan
GPGCC, Pakistan; Deakin, Australia
- 7:25PM Subspace-Based Dynamic Selection: A Proof of Concept Using Protein Microarray Data [#21568]**
Alexandre Maciel-Guerra, Graziela P. Figueredo, Eliane Marti, Marcos J. C. Alcocer and Jamie Twycross
University of Nottingham, United Kingdom; University of Bern, Switzerland

Special Session I-SS35: Deep and Generative Adversarial Learning

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 3, Chair: Ariel Ruiz-Garcia

- 5:45PM Few Features Attack to Fool Machine Learning Models through Mask-based GAN [#20218]**
Feng Chen, Yunkai Shang, Jincheng Hu and Bo Xu
Institute of Automation, Chinese Academy of Sciences, China; College of Electrical and Information Engineering, Hunan University, China

- 6:05PM Brain MRI Tumor Segmentation with Adversarial Networks [#20937]**
 Edoardo Giacomello, Daniele Loiacono and Luca Mainardi
 Politecnico di Milano, Italy
- 6:25PM OptiGAN: Generative Adversarial Networks for Goal Optimized Sequence Generation [#21031]**
 Mahmoud Hossam, Trung Le, Michael Papisimeon, Viet Huynh and Dinh Phung
 Monash University, Australia; The University of Melbourne, Australia
- 6:45PM A Guided Learning Approach for Generative Adversarial Networks [#20536]**
 Sidhant Nagpal, Siddharth Verma, Shikhar Gupta and Swati Aggarwal
 Netaji Subhas Institute of Technology, University of Delhi, India
- 7:05PM Catastrophic forgetting and mode collapse in GANs [#20846]**
 Hoang Thanh-Tung and Truyen Tran
 Deakin University, Australia
- 7:25PM Generative Adversarial Stacked Autoencoders for Facial Pose Normalization and Emotion Recognition [#21457]**
 Ariel Ruiz-Garcia, Vasile Palade, Mark Elshaw and Mariette Awad
 Coventry University, United Kingdom; American University of Beirut, Lebanon

Special Session I-SS59B: Artificial Intelligence and Advanced Machine Learning for Biomedical Signal Processing

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 4, Chair: Larbi Boubchir

- 5:45PM A Parallel Method for Anatomical Structure Segmentation based on 3D Seeded Region Growing [#21589]**
 Paulo Lacerda, Jose Gonzalez, Nazareth Rocha, Flavio Seixas, Celio Albuquerque, Esteban Clua and Aura Conci
 Universidade Federal Fluminense, Brazil
- 6:05PM Predicting body measures from 2D images using Convolutional Neural Networks [#21725]**
 Joao W. M. de Souza, Gabriel B. Holanda, Roberto F. Ivo, Shara Shami A. Alves, Suane Pires P. da Silva, Virginia X. Nunes, Luiz Lannes Loureiro, C. H. Dias-Silva and P. Pedrosa Reboucas Filho
 IFCE, Brazil; UFC, Brazil
- 6:25PM An Optimized Approach to Huntington's Disease Detecting via Audio Signals Processing with Dimensionality Reduction [#21760]**
 Matheus T. Guimaraes, Aldisio G. Medeiros, Jefferson S. Almeida, Marcos Falcao y Martin, Robertas Damasevicius, Rytis Maskeliunas, Cesar L. Cavalcante and Pedro Pedrosa Reboucas Filho
 UFC, Brazil; Kaunas University of Technology, Lithuania; IFCE, Brazil
- 6:45PM Gender Classification of EEG Signals using a Motif Attribute Classification Ensemble [#21834]**
 Jean Li, Jeremiah Deng, Dirk De Ridder and Divya Adhia
 University of Otago, New Zealand
- 7:05PM 2ST-UNet: 2-Stage Training Model using U-Net for Pneumothorax Segmentation in Chest X-Rays [#21952]**
 Ayat Abedalla, Malak Abdullah, Mahmoud Al-Ayyoub and Elhadj Benkhelifa
 Jordan University of Science and Technology, Jordan; University of Manchester, United Kingdom; Staffordshire University, United Kingdom

7:25PM Universal Adversarial Perturbations in Epileptic Seizure Detection [#21413]

Amir Aminifar

Swiss Federal Institute of Technology (EPFL), Switzerland

Session I-BP : Regular Best Paper Award

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 5, Chair: Daniel Levine

5:45PM Distributed Fault Accommodation for a Class of Interconnected Nonlinear Systems with Event-Triggered Inter-Communications [#21033]

Dong Zhao and Marios M. Polycarpou

University of Cyprus, Cyprus

6:05PM Regularized Training of Convolutional Autoencoders using the Renyi-Stratonovich Value of Information [#20975]

Isaac Sledge and Jose Principe

University of Florida, United States

6:25PM A Neurobiological Schema Model for Contextual Awareness in Robotics [#20408]

Tiffany Hwu, Hiram Kashyap and Jeffrey Krichmar

HRL Laboratories, LLC, United States; University of California, Irvine, United States

6:45PM On Adversarial Examples and Stealth Attacks in Artificial Intelligence Systems [#21348]

Ivan Y. Tyukin, Desmond Higham and Alexander N. Gorban

University of Leicester, United Kingdom; University of Edinburgh, United Kingdom

Session I-R5: Supervised learning 2

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 6, Chair: Wei-Chang Yeh

5:45PM A review of open-source machine learning algorithms for twitter text sentiment analysis and image classification [#20432]

Conor Lynch, Christian O Leary, Gary Smith, Rose Bain, Jacqueline Kehoe, Alex Vakaloudis and Richard Linger

Cork Institute of Technology, Ireland

6:05PM ArcGrad: Angular Gradient Margin Loss for Classification [#21234]

Wu Jiantao and Wang Lin

Shandong Provincial Key Laboratory of Network Based Intelligent Computing, China

6:25PM Performance measures for evolving predictions under delayed labelling classification [#21549]

Maciej Grzenda, Heitor Murilo Gomes and Albert Bifet

Warsaw University of Technology, Poland; University of Waikato, New Zealand

6:45PM CS-ARF: Compressed Adaptive Random Forests for Evolving Data Stream Classification [#20893]

Maroua Bahri, Heitor Murilo Gomes, Albert Bifet and Silviu Maniu

Telecom Paris, France; University of Waikato, New Zealand; Universite Paris-Sud, France

7:05PM Decision Surfaces of Localized Classifiers [#21706]

CSScott Brown and Ryan G Benton

University of South Alabama, United States

7:25PM Multi-target regression via output space quantization [#20199]

Eleftherios Spyromitros-Xioufis, Konstantinos Sechidis and Ioannis Vlahavas

Aristotle University of Thessaloniki, Greece

Session I-R6: Cognitive Neuroscience and Neurocognition

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Room 7, Chair: Amit Konar

5:45PM Analyzing the Capacity of Distributed Vector Representations to Encode Spatial Information [#20450]

Florian Mirus, Terrence C. Stewart and Jorg Conradt
BMW AG, Germany; Applied Brain Research Inc., Canada; KTH Royal Institute of Technology, Sweden

6:05PM Adaptive Inner-reward Shaping in Sparse Reward Games [#21045]

Yang Dong and Tang Yuhua
National University of Defense Technology, China

6:25PM Joint Representation Learning with Deep Quadruplet Network for Real-Time Visual Tracking [#21877]

Dawei Zhang and Zhonglong Zheng
Zhejiang Normal University, China

6:45PM Emotion Recognition under Sleep Deprivation Using a Multimodal Residual LSTM Network. [#21188]

Le-Yan Tao and Bao-Liang Lu
Shanghai Jiao Tong University, China

7:05PM Vowel Sound Imagery Decoding by a Capsule Network for the Design of an Automatic Mind-Driven Type-Writer [#21174]

Sayantani Ghosh, Mousumi Laha, Amit Konar, Pratyusha Rakshit and Atulya K. Nagar
Jadavpur University, India; Liverpool Hope University, United Kingdom

Plenary Poster Session I-P3: Recurrent Neural Networks and SOM

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Poster Room 1, Chair: Jin Hu

P501 Multi-Decoder RNN Autoencoder Based on Variational Bayes Method [#20181]

Daisuke Kaji, Kazuho Watanabe and Masahiro Kobayashi
Denso corporation, Japan; Toyohashi University of Technology, Japan

P502 Design of a Morlet Wavelet control algorithm using super-twisting sliding modes applied to an induction machine [#21456]

Daniel Magallon, Carlos Castaneda, Francisco Jurado and Onofre Morfin
Universidad de Guadalajara, Mexico; Tecnológico Nacional de México IT La Laguna, Mexico; Universidad Autónoma de Ciudad Juárez, Mexico

P503 Sliding Hierarchical Recurrent Neural Networks for Sequence Classification [#21183]

Bo Li, Zhonghao Sheng, Wei Ye, Jinglei Zhang, Kai Liu and Shikun Zhang
Peking University, China; Clemson University, United States

P504 The BlockChain Neural Network: Neuron as a Service [#20406]

Will Serrano
Alumni Imperial College London, United Kingdom

P505 Wavelet Denoising and Attention-based RNN-ARIMA Model to Predict Forex Price [#21072]

Zhiwen Zeng and Matloob Khushi
School of Computer Science, The University of Sydney, Australia

P506 Multi-level Visual Fusion Networks for Image Captioning [#20171]

Zhou Dongming, Zhang Canlong, Li Zhixin and Wang Zhiwen
Guangxi Normal University, China; Guangxi University of Science and Technology, China

- P507 Improve the LSTM and GRU model for small training data by wavelet transformation [#20454]**
Tzeng Jengnan, Lai Yen-Ru, Lin Ming-Lai, Lin Yu-Han and Shih Yu-Cheng
Dept. of Mathematical Sciences National Cheng-Chi University, Taiwan
- P508 A new batch SOM algorithm for relational data with weighted medoids. [#20485]**
Laura Marino and Francisco de Carvalho
Universidade Federal de Pernambuco-UFPE, Brazil
- P509 Exploring Time-Series Motifs Through DTW-SOM [#21627]**
Maria Ines Silva and Roberto Henriques
Nova Information Management School (NOVA IMS), Portugal
- P510 Visualization of topographical internal representation of learning robots [#21206]**
Shiori Kuramoto, Hideyuki Sawada and Pitoyo Hartono
Dept. of Applied Physics, School of Advanced Science and Engineering, Waseda University, Japan, Japan; School of Engineering Chukyo University, Japan
- P511 A Framework for the Analysis of Deep Neural Networks in Aerospace applications using Bayesian Statistics [#21610]**
Yuning He and Johann Schumann
NASA ARC, United States; KBR, NASA Ames, United States
- P512 Bio-Inspired System for Electricity Price Forecast in the Brazilian Market [#21909]**
Lidio Mauro Lima Campos, Roberto Celio Limao de Oliveira, Jherson Haryson Almeida Pereira and Danilo Souza Duarte
UFPA, Brazil
- P513 RCapsNet: A Recurrent Capsule Network for Text Classification [#20543]**
Junfeng Hu, Jun Liao, Li Liu and Wenchao Ma
Chongqing University, China

Plenary Poster Session I-P4: Applications of deep networks, big data

Monday, July 20, 5:45PM-7:45PM, Room: IJCNN Poster Room 2, Chair: Dhruval Jain

- P701 Poem Generation Using Transformers and Doc2Vec Embeddings [#21219]**
Marvin Santillan and Arnulfo Azcarraga
De La Salle University, Philippines
- P702 Hybrid Pooling Networks for Few-shot Learning [#20394]**
Tan Shaoqing and Yang Ruoyu
Nanjing University, China
- P703 Redistributing and Re-Stylizing Features for Training a Fast Photorealistic Stylizer [#20420]**
Chunpeng Wu, Bin Ni and Hai Li
Duke University, United States; Quantil Inc., United States
- P704 Conditional Transferring Features: Scaling GANs to Thousands of Classes with 30% Less High-Quality Data for Training [#21333]**
Chunpeng Wu and Hai Li
Duke University, United States
- P705 On-device Filtering of Social Media Images for Efficient Storage [#21708]**
Dhruval Jain, Debi Mohanty, Sanjeev Roy, Naresh Purre and Sukumar Moharana
Samsung R&D Institute Bengaluru, India; Samsung Research Institute Bangalore, India
- P706 Single Image Super-Resolution with Hierarchical Receptive Field [#20167]**
Ding Qin and Xiaodong Gu
Fudan University, China

- P707 A Simplified Deep Network Architecture on Optic Cup and Disc Segmentation [#21148]**
Guan-Ru Huang and Tien-Ruey Hsiang
National Taiwan University of Science and Technology, Taiwan
- P708 Acoustic Scene Classification using Single Frequency Filtering Cepstral Coefficients and DNN [#20072]**
Chandrasekhar Paseddula and Suryakanth.V Gangashetty
International Institute of Information Technology, Hyderabad, India
- P709 Towards Real-time Video Content Detection in Resource Constrained Devices [#20123]**
Jhonatan Geremias, Eduardo Viegas, Altair Santin and Alceu Britto Jr
Pontifical Catholic University of Parana, Brazil
- P710 Cross-Representation Transferability of Adversarial Attacks: From Spectrograms to Audio Waveforms [#21007]**
Karl Michel Koerich, Mohammad Esmailpour, Sajjad Abdoli, Souza Britto Jr. Alceu and Alessandro Lameiras Koerich
McGill University, Canada; ETS Montreal, Canada; PUCPR, Brazil
- P711 CQ-VQA: Visual Question Answering on Categorized Questions [#21852]**
Aakansha Mishra, Ashish Anand and Prithwjit Guha
IIT Guwahati, India
- P712 Generating Chinese Poetry from Images via Concrete and Abstract Information [#20631]**
Yusen Liu, Dayiheng Liu, Jiancheng Lv and Yongsheng Sang
Sichuan University, China
- P713 BDANN: BERT-Based Domain Adaptation Neural Network for Multi-Modal Fake News Detection [#21911]**
Tong Zhang, Di Wang, Huanhuan Chen, Zhiwei Zeng, Wei Guo, Chunyan Miao and Lizhen Cui
Shandong University, China; Nanyang Technological University, Singapore; University of Science and Technology of China, China
- P714 Dynamic Attention Aggregation with BERT for Neural Machine Translation [#20431]**
JiaRui Zhang, HongZheng Li, ShuMin Shi, HeYan Huang, Yue Hu and XiangPeng Wei
Institute of Information Engineering, Chinese Academy of Sciences, China; School of Computer Science and Technology, Beijing Institute of Technology, China
- P715 Novel Fast Binary Hash for Content-based Solar Image Retrieval [#21646]**
Rafal Grycuk and Rafal Scherer
Czestochowa University of Technology, Poland
- P716 Predicting Outcomes of Chemical Reactions: A Seq2Seq Approach with Multi-view Attention and Edge Embedding [#21896]**
Xiao Xia, Shang Chao, Bi Jinbo and Rajasekaran Sanguthevar
University of Connecticut, United States
- P717 Improving Barnes-Hut t-SNE Scalability in GPU with Efficient Memory Access Strategies [#21581]**
Bruno Meyer, Aurora Pozo and Wagner Zola
Federal University of Parana, Brazil
- P718 Learning Word Representation for the Cyber Security Vulnerability Domain [#21599]**
Sara Mumtaz, Carlos Rodriguez, Boualem Benatallah, Mortada Al-Banna and Shayan Zamanirad
University of New South Wales, Sydney, Australia; Catholic University, Paraguay
- P719 A Large-scale Simulation Dataset: Boost the Detection Accuracy for Special Weather Conditions [#20913]**
Dongfang Liu, Yiming Cui, Cao Zhiwen and Yingjie Chen
Purdue University, United States; University of Florida, United States

P720 Bio-inspired technique for improving machine learning speed and big data processing [#20562]

Andronicus A. Akinyelu

University of the Free State, Department of Computer Science and Informatics, South Africa

P721 Deep Representation of Hierarchical Semantic Attributes for Zero-shot Learning [#21262]

Zhang Zhaocheng and Yang Gang

Renmin University of China, China

Session I-R7: Deep neural networks

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 1, Chair: Karol Checinski, Pawel Wawrzynski

8:00PM When Explainability Meets Adversarial Learning: Detecting Adversarial Examples using SHAP Signatures [#20917]

Gil Fidel, Ron Bitton and Asaf Shabtai

Ben-Gurion university of the Negev, Israel

8:20PM Gated Graph Pooling with Self-Loop for Graph Classification [#20162]

Xiaolong Fan, Maoguo Gong, Hao Li, Yue Wu and Shanfeng Wang

School of Electronic Engineering, Key Laboratory of Intelligent Perception and Image Understanding of Ministry of Education Xidian University, Xi'an, Shaanxi Province 710071, China, China; School of Computer Science and Technology, Xidian University, Xi'an, Shaanxi Province 710071, China, China; School of Cyber Engineering, Xidian University, Xi'an, Shaanxi Province 710071, China, China

8:40PM GCN-LRP explanation: exploring latent attention of graph convolutional networks [#21026]

Jinlong Hu, Tenghui Li and Shoubin Dong

South China University of Technology, China

9:00PM Enhancing Textual Representation for Abstractive Summarization: Leveraging Masked Decoder [#20777]

Ruipeng Jia, Yanan Cao, Fang Fang, Jinpeng Li, Yanbing Liu and Pengfei Yin

Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences, China

9:20PM Adversarial Robustness of Model Sets [#21561]

Istvan Megyeri, Istvan Hegedus and Mark Jelasity

University of Szeged, Hungary

9:40PM DCT-Conv: Coding filters in convolutional networks with Discrete Cosine Transform [#20335]

Karol Checinski and Pawel Wawrzynski

Warsaw University of Technology, Poland

Special Session I-SS3: Current Trend of Machine Learning in Computer Vision

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 2, Chair: Mukesh Prasad

8:00PM YOLOv3 Precision Improvement by the Weighted Centers of Confidence Selection [#21492]

Adrian Horzyk and Efe Ergun

AGH University of Science and Technology in Krakow, Poland

- 8:20PM Discrepancy-Aware Collaborative Representation for Unsupervised Domain Adaptation [#20095]**
Han Chao, Zhou Deyun, Xie Yu, Lei Yu, Shi Jiao and Gong Maoguo
Northwestern Polytechnical University, China; Xidian university, China
- 8:40PM FasTrCaps: An Integrated Framework for Fast yet Accurate Training of Capsule Networks [#21392]**
Alberto Marchisio, Beatrice Bussolino, Alessio Colucci, Muhammad Abdullah Hanif, Maurizio Martina, Guido Masera and Muhammad Shafique
TU Wien, Austria; Politecnico di Torino, Italy
- 9:00PM Video object segmentation using spatio-temporal deep network [#21402]**
Akshaya Ramaswamy, Jayavardhana Gubbi and Balamurali Purushothaman
TCS Research and Innovation, India
- 9:20PM Multi-Path Multi Deep Convolutional Neural Networks for Large Scale Plant Species Identification in Wild [#21901]**
Syeda Allena Riaz, Seeda Naz and Imran Razzak
GPGC, Pakistan; UTS, Australia
- 9:40PM One-Shot Learning for Surveillance Anomaly Recognition using Siamese 3D CNN [#20401]**
Amin Ullah, Khan Muhammad, Kilichbek Haydarov, Ijaz Ul Haq, Miyoung Lee and Sung Wook Baik
Intelligent Media Laboratory, Digital Contents Research Institute, Sejong University, Korea (South)

Special Session I-SS32: Healthcare Analytics: Improving Healthcare outcomes using Big Data Analytics

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 3, Chair: Imran Razzak

- 8:00PM K-mer Neural Embedding Performance Analysis Using Amino Acid Codons [#21702]**
Muhammad Asim, Muhammad Malik, Andreas Dengel and Sheraz Ahmed
German Research Center for Artificial Intelligence (DFKI), 67663 Kaiserslautern, Germany, Germany; Center for Artificial Intelligence (NCAI), National University of Sciences and Technology, Islamabad, Pakistan, Pakistan; German Research Center for Artificial Intelligence (DFKI), Germany
- 8:20PM G1020: A Benchmark Retinal Fundus Image Dataset for Computer-Aided Glaucoma Detection [#21483]**
Muhammad Naseer Bajwa, Gur Amrit Pal Singh, Wolfgang Neumeier, Muhammad Imran Malik, Andreas Dengel and Sheraz Ahmed
German Research Center for Artificial Intelligence GmbH, Germany; Ophthalmology Clinic, Germany; National University of Science and Technology, Pakistan; German Research Center for Artificial Intelligence (DFKI), Germany
- 8:40PM Exploiting Residual Edge Information in Deep Fully Convolutional Neural Networks For Retinal Vessel Segmentation [#21810]**
Tariq Khan, Syed Naqvi, Muhammad Arsalan, Muhammad Khan, Haroon Khan and Adnan Haider
Deakin University, Australia; COMSATS University Islamabad, Pakistan; Dongguk University, Korea (South); Lancaster University, United Kingdom

9:00PM Data-Driven Approach based on Feature Selection Technique for Early Diagnosis of Alzheimer's Disease [#20592]

Surendrabikram Thapa, Priyanka Singh, Deepak Kumar Jain, Neha Bharill, Akshansh Gupta and Mukesh Prasad

Delhi Technological University, India; University of Technology Sydney, Australia; Chongqing University of Posts and Telecommunications, China; Mahindra Ecole Centrale, India; Jawaharlal Nehru University, India

9:20PM Biomedical Named-Entity Recognition by Hierarchically Fusing BioBERT Representations and Deep Contextual-Level Word-Embedding [#21145]

Usman Naseem, Katarzyna Musial, Peter Eklund and Prasad Mukesh

University of Technology Sydney, Australia; Deakin University, Australia

9:40PM Convolutional Neural Network for Medical Image Classification using Wavelet Features [#21617]

Amin Khatami, Asef Nazari, Amin Beheshti, Thanh Thi Nguyen, Saeid Nahavandi and Zieba Jerzy

Deakin University, Australia; Macquary University, Australia; University of New South Wales, Australia

Special Session I-SS60: Learning from Difficult Data Streams

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 4, Chair: Bartosz Krawczyk

8:00PM Online Meta-Forest for Regression Data Streams [#21146]

Shaker Ammar, Gaertner Christoph, He Xiao and Yu Shujian

NEC Laboratories Europe GmbH, Germany; BridgingIT GmbH, Germany; Alibaba Group, China

8:20PM Fake News Detection from Data Streams [#21166]

Pawel Ksieniewicz, Pawel Zybiewski, Michal Choras, Rafal Kozik, Agata Gielczyk and Michal Wozniak

Wroclaw University of Science and Technology, Poland; UTP University of Science and Technology, Poland

8:40PM Online Oversampling for Sparsely Labeled Imbalanced and Non-Stationary Data Streams [#21427]

Lukasz Korycki and Bartosz Krawczyk

Virginia Commonwealth University, United States

9:00PM Employing dropout regularization to classify recurring drifted data streams [#21435]

Filip Guzy and Michal Wozniak

Wroclaw University of Science and Technology, Poland

9:20PM Discovering Sequential Patterns by Neural Networks [#21350]

Jakub Nowak, Marcin Korytkowski and Rafal Scherer

Czestochowa University of Technology, Poland

9:40PM Analysis of Information-Seeking Conversations with Process Mining [#20471]

Alexander Holstrup, Lasse Starklit and Andrea Burattin

Technical University of Denmark, Denmark

Special Session I-SS36-7: Deep Learning for Wildlife Bioacoustics, Ecology and Crop Science
Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 5, Chair: Dan Stowell, Valerio Giuffrida

8:00PM Vision-Based Analysis on Leaves of Tomato Crops for Classifying Nutrient Deficiency using Convolutional Neural Networks [#20969]

Claudio Cevallos, Hiram Ponce, Ernesto Moya-Albor and Jorge Brieua
Universidad Panamericana, Mexico

8:20PM Learning Deep Models from Synthetic Data for Extracting Dolphin Whistle Contours [#21005]

Pu Li, Xiaobai Liu, K. Palmer, Erica Fleishman, Douglas Gillespie, Eva-Marie Nosal, Yu Shiu, Holger Klinck, Danielle Cholewiak, Tyler Helble and Marie Roch
San Diego State University, United States; Colorado State University, United States; University of St. Andrews, Scotland; University of Hawaii, United States; Cornell University, United States; f Northeast Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, United States; US Navy Naval Information Warfare Center Pacific, United States

8:40PM An Auto Encoder For Audio Dolphin Communication [#20738]

Daniel Kohlsdorf, Denise Herzing and Thad Starner
Freelance Data Scientist, Germany; Wild Dolphin Project, United States; Georgia Institute of Technology, United States

9:00PM DOCC10: Open access dataset of marine mammal transient studies and end-to-end CNN classification [#21412]

Maxence Ferrari, Herve Glotin, Ricard Marxer and Mark Asch
Universite Amiens, CNRS, LAMFA, France, France; Universite Toulon, Aix Marseille Univ., France

9:20PM Deep Learning and Domain Transfer for Orca Vocalization Detection [#21414]

Paul Best, Maxence Ferrari, Marion Poupard, Sebastien Paris, Ricard Marxer, Helena Symonds, Paul Spong and Herve Glotin
UTLN, France; LAMFA, France; Orcalab, Canada

9:40PM Deep Learning-based Object Detection for Crop Monitoring in Soybean Fields [#21248]

Muhammad Taufiq Pratama, Sangwook Kim, Seiichi Ozawa, Takenao Ohkawa, Yuya Chonan, Hiroyuki Tsuji and Noriyuki Murakami
Kobe University, Japan; National Agriculture and Food Research Organization, Japan

Session I-R8: Supervised learning 3

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 6, Chair: Abir Hussain, Wei-Chang Yeh

8:00PM Integrating Informativeness, Representativeness and Diversity in Pool-Based Sequential Active Learning for Regression [#20391]

Ziang Liu and Dongrui Wu
Huazhong University of Science & Technology, China

8:20PM Harnessing Adversarial Distances to Discover High-Confidence Errors [#20782]

Walter Bennette, Karsten Maurer and Sean Sisti
US Air Force Research Lab, United States; Miami University, United States

8:40PM DIOPT: Extremely Fast Classification Using Lookups and Optimal Feature Discretization [#21501]

Johan Garcia and Topi Korhonen
Karlstad University, Sweden

9:00PM Information Ranking Using Optimum-Path Forest [#21235]

Nathalia Ascencao, Luis Afonso, Danilo Colombo, Luciano Oliveira and Joao Papa
UNESP - Sao Paulo State University, Brazil; UFSCar - Federal University of Sao Carlos, Brazil;
Petrobras - Petroleo Brasileiro, Brazil; UFBA - Federal University of Bahia, Brazil

9:20PM O(m log m) instance selection algorithms -- RR-DROPs [#21422]

Marek Orlinski and Jankowski Norbert
Department of Informatics, Nicolaus Copernicus University in Torun, Poland

9:40PM General Fair Empirical Risk Minimization [#20457]

Luca Oneto, Donini Michele and Massimiliano Pontil
University of Genoa, Italy; Amazon, United States; IIT, Italy

Session I-R9: Visual System

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Room 7, Chair: Ajith Abraham

8:00PM Simultaneous Neural Spike Encoding and Decoding Based on Cross-modal Dual Deep Generative Model [#20163]

Qiongyi Zhou, Changde Du, Dan Li, Haibao Wang, Jian Liu and Huiguang He
Research Center for Brain-Inspired Intelligence, National Laboratory of Pattern Recognition, CASIA, School of Artificial Intelligence, University of Chinese Academy of Sciences, China; Research Center for Brain-Inspired Intelligence, National Laboratory of Pattern Recognition, CASIA, School of Artificial Intelligence, University of Chinese Academy of Sciences, Huawei Cloud BU EI Innovation Lab, China; Centre for Systems Neuroscience, Department of Neuroscience, Psychology and Behaviour, University of Leicester, United Kingdom; Research Center for Brain-Inspired Intelligence, National Laboratory of Pattern Recognition, CASIA, School of Artificial Intelligence, University of Chinese Academy of Sciences, Center for Excellence in Brain Science and Intelligence Technology, CAS, China

8:20PM Competition between ON and OFF Neural Pathways Enhancing Collision Selectivity [#20421]

Fang Lei, Zhiping Peng, Vassilis Cutsuridis, Mei Liu, Yicheng Zhang and Shigang Yue
School of Computer Science, University of Lincoln, United Kingdom; Guangdong University of Petrochemical Technology, China

8:40PM HLNet: Modeling High and Low Frequencies for Scene Parsing [#21395]

Kaiqiang Xu, Zhulin An, Hui Zhu, Xiaolong Hu and Yongjun Xu
Institute of Computing Technology, Chinese Academy of Sciences, China; University of Chinese Academy of Sciences, China, China; Institute of Computing Technology, Chinese Academy of Sciences, China; Institute of Computing Technology, Chinese Academy of Sciences, China, China

9:00PM Cognitive Architecture for Video Games [#20974]

Hongming Li, Ying Ma and Jose Principe
University of Florida, United States

9:20PM Voice over LTE Quality Evaluation Using Convolutional Neural Networks [#21445]

Thomas Gorman, Hadi Larijani and Ayyaz-UI-Haq Qureshi
Glasgow Caledonian University, United Kingdom

9:40PM A Viewport Prediction Framework for Panoramic Videos [#20818]

Jinting Tang, Yongkai Huo, Shaoshi Yang and Jianmin Jiang
Shenzhen University, China; Beijing University of Posts and Telecommunications, China

Plenary Poster Session I-P5: Different Neural Networks - fuzzy, large scale, RBF

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Poster Room 1, Chair: Sreela Sasi

- P901 Hessian-based Bounds on Learning Rate for Gradient Descent Algorithms [#21290]**
Prayag Gowgi and Shayan Srinivasa Garani
Indian Institute of Science, India
- P902 ReFuzzTiD: A Recurrent Neurofuzzy Model for Anomaly Detection in Time Series [#20156]**
George Kandilogiannakis and Paris Mastorocostas
University of West Attica, Dpt. of Informatics & Computer Eng., Greece
- P903 Intrusion Detection with Segmented Federated Learning for Large-Scale Multiple LANs [#21025]**
Yuwei Sun, Hideya Ochiai and Hiroshi Esaki
The University of Tokyo, Japan
- P904 Visualisation and knowledge discovery from interpretable models [#20880]**
Sreejita Ghosh, Peter Tino and Kerstin Bunte
Bernoulli Institute, University of Groningen, Netherlands; School of Computer Science, University of Birmingham, United Kingdom
- P905 LALR: Theoretical and Experimental validation of Lipschitz Adaptive Learning Rate in Regression and Neural Networks [#21363]**
Snehanshu Saha, Tejas Prashanth, Suraj Aralihalli, Sumedh Basarkod, T.S.B Sudarshan and Soma S Dhavala
BITS Pilani K K Birla Goa Campus, India; PES University, India; ML Square, India
- P906 Heterogeneous Information Network Embedding with Convolutional Graph Attention Networks [#20261]**
Meng Cao, Xiyang Ma, Kai Zhu, Ming Xu and Chongjun Wang
Nanjing University, China
- P907 Neural Networks for the Retrieval of Methane from the Sentinel-5 Precursor Satellite. [#21609]**
Rose Fenwick, Hartmut Boesch and Ivan Tyukin
University of Leicester, United Kingdom
- P908 Are Modern Deep Learning Models for Sentiment Analysis Brittle? An Examination on Part-of-Speech [#21837]**
Ahoud Alhazmi, Wei Emma Zhang, Quan Z. Sheng and Abdulwahab Aljubairy
Department of Computing, Macquarie University Sydney, NSW 2109, Australia; School of Computer Science, The University of Adelaide, SA 5005, Australia; Department of Computing, Macquarie University Sydney, NSW 2109, Australia; Department of Computing, Macquarie University Sydney, Australia
- P909 DAPAS : Denoising Autoencoder to Prevent Adversarial attack in Semantic Segmentation [#20293]**
Seungju Cho, Tae Joon Jun, Byungsoo Oh and Daeyoung Kim
School of computing, Korea (South); Asan Medical Center, Korea (South)
- P910 Generalized Neural Framework for Learning with Rejection [#21030]**
Amina Asif and Fayyaz ul Amir Afsar Minhas
Pakistan Institute of Engineering and Applied Sciences (PIEAS), Islamabad, Pakistan; University of Warwick, United Kingdom

P911 Analyzing the Sensitivity of Deep Neural Networks for Sentiment Analysis: A Scoring Approach [#21814]

Ahoud Alhazmi, Wei Emma Zhang, Quan Z. Sheng and Abdulwahab Aljubairy
Department of Computing, Macquarie University Sydney, NSW 2109, Australia; School of Computer Science, The University of Adelaide, SA 5005, Australia; Department of Computing, Macquarie University Sydney, NSW 2109,, Australia; Department of Computing, Macquarie University Sydney, Australia

P912 Adaptive Neural Consensus Control for Nonlinear Strict-Feedback Multiagent Systems With Switching Directed Topology [#20781]

Wei Zhang and Zhaoxu Yu
East China University of Science and Technology, China

P913 Probabilistic Neural Network - parameters adjustment in classification task [#21598]

Piotr Kowalski, Maciej Kusy, Szymon Kubasiak and Szymon Lukasik
Faculty of Physics and Applied Computer Science, AGH University of Science and Technology, Poland; Faculty of Electrical and Computer Engineering, Rzeszow University of Technology, Poland

P914 Multilayer GMDH-neuro-fuzzy System Based on Extended Neo-fuzzy Neurons and Its Learning in Online Facial Expression Recognition [#20014]

Yevgeniy Bodyanskiy, Yuriy Zaychenko, Nonna Kulishova and Galib Hamidov
Control Systems Research Laboratory Kharkiv National University of Radio Electronics, Ukraine; Institute for Applied System Analysis Igor Sikorski Kyiv Polytechnic Institute, Ukraine; Media Systems and Technologies Department Kharkiv National University of Radio Electronics, Ukraine; Information Technologies Department Igor Sikorski Kyiv Polytechnic Institute, Azerbaijan

Plenary Poster Session I-P6:

Monday, July 20, 8:00PM-10:00PM, Room: IJCNN Poster Room 2, Chair: Alma Alanis

P1101 Bioinformatics-inspired non-parametric modelling of pharmacokinetics-pharmacodynamics systems using differential neural networks [#21167]

Mariel Alfaro-Ponce and Isaac Chairez
Tecnologico de Monterrey, Mexico; Instituto Politecnico Nacional, Mexico

P1102 A New Methodology for Classifying QRS Morphology in ECG Signals [#20868]

Wesley Caldas, Joao Paulo Madeiro, Cesar Mattos and Joao Paulo Gomes
Federal University of Ceara, Brazil

P1103 Joint Heart Sounds Segmentation and Murmur Detection with Masked Loss Function [#20155]

Tomasz Grzywalski, Adam Maciaszek, Riccardo Belluzzo, Krzysztof Szarzynski, Mateusz Piecuch and Honorata Hafke-Dys
StethoMe, Poznan, Poland; Institute of Acoustics, Faculty of Physics, Adam Mickiewicz University, Poznan, Poland

P1104 Breast Cancer Histopathological Image Classification Based on Deep Second-order Pooling Network [#20204]

Jiasen Li, Jianxin Zhang, Qiule Sun, Hengbo Zhang, Jing Dong, Chao Che and Qiang Zhang
Dalian University, China; Dalian Minzu University, China; Dalian University of Technology, China; Dalian University of Technology, Canada

P1105 Discovering biomedical causality by a generative Bayesian causal network under uncertainty [#21015]

Ting Ye, Jun Liao, Xuewen Yan, Hao Luo, Wenbing Zhang and Li Liu
School of Big Data & Software Engineering Chongqing University, China

- P1106 A Probabilistic Beat-to-Beat Filtering Model for Continuous and Accurate Blood Pressure Estimation [#21770]**
 Zehua Chen, Bruno Scalzo Dees and Danilo Mandic
 Department of EEE, Imperial College London, United Kingdom
- P1107 RED: Deep Recurrent Neural Networks for Sleep EEG Event Detection [#21940]**
 Nicolas Igor Tapia and Pablo Antonio Estevez
 Universidad de Chile, Chile
- P1108 An App to Detect Melanoma Using Deep Learning: An Approach to Handle Imbalanced Data Based on Evolutionary Algorithms [#20786]**
 Pedro B.C. Castro, Breno Krohling, Andre G.C. Pacheco and Renato A. Krohling
 UFES - Federal University of Espirito Santo, Brazil
- P1109 Sleep Apnea Event Prediction Using Convolutional Neural Networks and Markov Chains [#21831]**
 Rim Haidar, Irena Koprinska and Bryn Jeffries
 The University of Sydney, Australia
- P1110 Deep Learning based fully automatic efficient Burn Severity Estimators for better Burn Diagnosis [#21749]**
 Joochi Chauhan and Puneet Goyal
 Indian Institute of Technology Ropar, India
- P1111 A Comparative Study of U-Net Topologies for Background Removal in Histopathology Images [#20384]**
 Abtin Riasatian, Maral Rasoolijaberi, Morteza Babaie and Hamid R. Tizhoosh
 Kimia Lab, University of Waterloo, Canada, Canada
- P1112 HIME: Mining and Ensembling Heterogeneous Information for Protein-Protein Interactions Prediction [#20692]**
 Huaming Chen, Yaochu Jin, Lei Wang, Chi-Hung Chi and Jun Shen
 University of Wollongong, Australia; University of Surrey, United Kingdom; CSIRO, Australia
- P1113 Deep Learning Based Unsupervised and Semi-supervised Classification for Keratoconus [#20788]**
 Hallett Nicole, Yi Kai, Dick Josef, Hodge Christopher, Sutton Gerard, Wang Yu Guang and You Jingjing
 The University of Sydney, Australia; The University of New South Wales, Australia
- P1114 Cognitive Identity Management: Synthetic Data, Risk and Trust [#21009]**
 Svetlana Yanushkevich, Adrian Stoica, Peter Shmerko, W. Gareth Howells, Keeley Crockett and Richard Guest
 University of Calgary, Canada; NASA's JPL/California Institute of Technology, United States; University of Kent, United Kingdom; Manchester Metropolitan University, United Kingdom
- P1115 An Adaptive Control Approach for Intelligent Wheelchair Based on BCI Combining with QoO [#21047]**
 Fei Wang, Zongfeng Xu, Weiwei Zhang, Shichao Wu, Yahui Zhang and Sonya Coleman
 Northeastern University, China; Ulster University, United Kingdom

TUESDAY, JULY 21

Session I-R10: Deep neural networks

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 1, Chair: Jiabo He, Sarah Erfani

- 2:30PM Convolutional Transformer with Sentiment-aware Attention for Sentiment Analysis [#20442]**
Pengfei Li, Peixiang Zhong, Jiaheng Zhang and Kezhi Mao
Nanyang Technological University, Singapore
- 2:50PM Enhancing Perceptual Loss with Adversarial Feature Matching for Super-Resolution [#21833]**
Ravi Tej Akella, Shirsendu Sukanta Halder, Arunav Pratap Shandeelya and Vinod Pankajakshan
Indian Institute of Technology Roorkee, India; Carnegie Mellon University, United States; International Institute of Information Technology Bhubaneswar, India
- 3:10PM On the Information Plane of Autoencoders [#21963]**
Nicolas Igor Tapia and Pablo Antonio Estevez
Universidad de Chile, Chile
- 3:30PM Hierarchical Group Sparse Regularization for Deep Convolutional Neural Networks [#20499]**
Kakeru Mitsuno, Junichi Miyao and Takio Kurita
Hiroshima University, Japan
- 3:50PM An Ensemble of Knowledge Sharing Models for Dynamic Hand Gesture Recognition [#21533]**
Kenneth Lai and Svetlana Yanushkevich
University of Calgary, Canada
- 4:10PM Learning Non-Unique Segmentation with Reward-Penalty Dice Loss [#20351]**
Jiabo He, Sarah Erfani, Sudanthi Wijewickrema, Stephen O'Leary and Kotagiri Ramamohanarao
University of Melbourne, Australia

Special Session I-SS4A: Feature Extraction and Learning on Image and Text Data

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 2, Chair: Mukesh Prasad

- 2:30PM Remote Extraction of Latent Fingerprints (RELf) [#20806]**
Matthew McGuigan and Jacqueline Christmas
University of Exeter, United Kingdom
- 2:50PM YOLO-ASC: You Only Look Once And See Contours [#21070]**
Petr Hurtik, Vojtech Molek and Pavel Vlasanek
University of Ostrava, Czech Republic
- 3:10PM Improving Diversity and Reducing Redundancy in Paragraph Captions [#21087]**
Chandresh Shambhubhai Kanani, Sriparna Saha and Pushpak Bhattacharyya
Indian Institute of Technology, Patna, India
- 3:30PM Towards Improved Deep Contextual Embedding for the identification of Irony and Sarcasm [#21115]**
Usman Naseem, Imran Razzak, Peter Eklund and Katarzyna Musial
University of Technology Sydney, Australia; Deakin University, Australia

3:50PM Transfer learning in hierarchical dialogue topic classification with neural networks [#21484]

Cesar Montenegro, Roberto Santana and Jose Antonio Lozano
University of the Basque Country UPV/EHU, Spain; University of the Basque Country UPV/EHU and BCAM, Spain

4:10PM Effects of Architecture and Training on Embedding Geometry and Feature Discriminability in BERT [#21493]

Maksim Podkorytov, Daniel Bis, Jinglun Cai, Kobra Amirizirtol and Xiuwen Liu
Florida State University, United States

Special Session I-SS50: Machine Learning and Deep Learning Approaches to for Ambient Assisted Living

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 3, Chair: Hiram Ponce

2:30PM Representing Temporal Dependencies in Smart Home Activity Recognition for Health Monitoring [#21361]

Glenn Forbes, Stewart Massie, Susan Craw, Lucy Fraser and Graeme Hamilton
Robert Gordon University, United Kingdom; Albyn Housing Society Ltd, United Kingdom

2:50PM Uncovering Human Multimodal Activity Recognition with a Deep Learning Approach [#21098]

Caetano Mazzoni Ranieri, Patricia Amancio Vargas and Roseli Aparecida Francelin Romero
University of Sao Paulo, Brazil; Heriot Watt University, Brazil

3:10PM Neural Recurrent Approches to Noninvasive Blood Pressure Estimation [#21227]

Annunziata Paviglianiti, Vincenzo Randazzo, Giansalvo Cirrincione and Eros Pasero
DET - Politecnico di Torino, Italy; Lab. LTI - Universite' de Picardie Jules Verne Amiens, France
University of South Pacific, Suva, Fiji, France

3:30PM Online Testing in Machine Learning Approach for Fall Detection [#20382]

Lourdes Martinez-Villasenor, Hiram Ponce, Jose Nunez-Martinez and Sofia Pacheco
Universidad Panamericana, Mexico

3:50PM Comparative Analysis of Artificial Hydrocarbon Networks versus Convolutional Neural Networks in Human Activity Recognition [#21902]

Hiram Ponce and Lourdes Martinez-Villasenor
Universidad Panamericana, Mexico

4:10PM Enhancing Multivariate Time Series Classification Using LSTM and Evidence Feed Forward HMM [#20571]

Achyut Mani Tripathi
Indian Institute of technology Guwahati, India

Special Session I-SS13: Computational Intelligence for Applied Time Series Forecasting

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 4, Chair: Cristian Rodriguez Rivero

2:30PM Baseline win rates for neural-network based trading algorithms [#20761]

Andreas Krause and Michael Fairbank
University of Bath, United Kingdom; University of Essex, United Kingdom

2:50PM Pattern-based Long Short-term Memory for Mid-term Electrical Load Forecasting [#20263]

Pawel Pelka and Grzegorz Dudek
Czestochowa University of Technology, Poland

3:10PM Granger Causality Analysis based on Neural Networks Architectures for bivariate cases [#21650]

Alvaro David Orjuela-Canon, Andres Jutinico, Alexander Cerquera and Jan A. Freund
Universidad del Rosario, Colombia; Universidad Antonio Narino, Colombia; University of Florida, United States; Carl von Ossietzky Universitat Oldenburg, Germany

3:30PM On the evaluation of dynamic selection parameters for time series forecasting [#21400]

Eraylson Galdino da Silva, George D. C. Cavalcanti, Joao Fausto L. de Oliveira and Paulo S. G. de Mattos Neto
Universidade Federal de Pernambuco, Brazil; Universidade de Pernambuco, Brazil

3:50PM New Perspectives on the Use of Online Learning for Congestion Level Prediction over Traffic Data [#20568]

Eric L. Manibardo, Ibai Lana, Jesus L. Lobo and Javier Del Ser
TECNALIA, Basque Research and Technology Alliance (BRTA), Spain; University of the Basque Country (UPV/EHU), Spain

4:10PM ADMM Consensus for Deep LSTM Networks [#21332]

Antonello Rosato, Federico Succetti, Marcello Barbirotta and Massimo Panella
University of Rome "La Sapienza", Italy

Special Session I-SS39: Challenges in Reservoir Computing

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 5, Chair: Claudio Gallicchio

2:30PM Spatial distribution of information effective for logic function learning in spin-wave reservoir computing chip utilizing spatiotemporal physical dynamics [#21140]

Takehiro Ichimura, Ryosho Nakane, Gouhei Tanaka and Akira Hirose
The University of Tokyo, Japan

2:50PM Hierarchical-Task Reservoir for Anytime POS Tagging from Continuous Speech [#21404]

Luca Pedrelli and Xavier Hinaut
INRIA Bordeaux Sud-Ouest., France

3:10PM Tree Echo State Autoencoders with Grammars [#20950]

Benjamin Paassen, Irena Koprinska and Kalina Yacef
The University of Sydney, Australia

3:30PM Deep Echo State Networks with Multi-Span Features for Nonlinear Time Series Prediction [#21214]

Ziqiang Li and Gouhei Tanaka
The University of Tokyo, Japan

3:50PM Cross-Situational Learning with Reservoir Computing for Language Acquisition Modelling [#21728]

Alexis Juven and Xavier Hinaut
INRIA Bordeaux, France

Session I-R11: Supervised learning 4

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 6, Chair: Eyad Elyan

2:30PM Data Augmentation for Histopathological Images Based on Gaussian-Laplacian Pyramid Blending [#21432]

Steve Tsham Mpinda Ataky, Jonathan de Matos, Alceu de Souza Britto Jr, Luiz Eduardo S Oliveira and Alessandro Lameiras Koerich
Ecole de Technologie Superieure, Canada; Pontifical Catholic University of Parana, Brazil; Federal University of Parana, Brazil

- 2:50PM Adaptive XGBoost for Evolving Data Streams [#21153]**
 Jacob Montiel, Rory Mitchell, Eibe Frank, Bernhard Pfahringer, Talel Abdesslem and Albert Bifet
 University of Waikato, New Zealand; Telecom ParisTech, France
- 3:10PM Multi-criteria analysis involving Pareto-optimal misclassification tradeoffs on imbalanced datasets [#20385]**
 Marcos M. Raimundo and Fernando J. Von Zuben
 University of Campinas, Brazil
- 3:30PM Online Learning for Anomaly Detection via Subdivisible Convex Hulls [#21305]**
 David Novoa-Paradela, Oscar Fontenla-Romero and Bertha Guijarro-Berdinas
 CITIC, University of A Coruna, Spain
- 3:50PM Unsupervised Embeddings for Categorical Variables [#20889]**
 Hannes De Meulemeester and Bart De Moor
 KU Leuven, Belgium
- 4:10PM Generating Compact Tree Ensembles via Annealing [#20954]**
 Gitesh Dawer, Yangzi Guo and Adrian Barbu
 Apple Inc., United States; Florida State University, United States

Session I-R12: Attention

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Room 7, Chair: Marco Gori

- 2:30PM Multivariate Time Series Classification With An Attention-Based Multivariate Convolutional Neural Network [#21040]**
 Achyut Mani Tripathi and Rashmi Dutta Baruah
 Indian Institute of technology Guwahati, India; Indian Institute of Technology Guwahati, India
- 2:50PM Federated Multi-task Learning with Hierarchical Attention for Sensor Data Analytics [#20981]**
 Yujing Chen, Yue Ning, Zheng Chai and Huzefa Rangwala
 George Mason University, United States; Stevens Institute of Technology, United States
- 3:10PM Attention Before and After Feature Extraction for Action Recognition [#21506]**
 Zichen Zhou, Yiling Xu and Le Yang
 Shanghai Jiao Tong University, China; University of Canterbury, New Zealand
- 3:30PM GuideSQL: Utilizing Tables to Guide the Prediction of Columns for Text-to-SQL Generation [#20771]**
 Huajie Wang, Lei Chen, Mei Li and Mengnan Chen
 East China Normal University, China
- 3:50PM Toward Improving the Evaluation of Visual Attention Models: a Crowdsourcing Approach [#20504]**
 Dario Zanca, Stefano Melacci and Marco Gori
 University of Siena, Italy

Plenary Poster Session I-P7: Spiking Neural Networks

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Poster Room 1, Chair: Zhijun Yang

- P1301 Deep Spiking Neural Network Using Spatio-temporal Backpropagation with Variable Resistance [#20455]**
 Xianglan Wen, Pengjie Gu, Rui Yan and Huajin Tang
 Sichuan University, China; Zhejiang University of Technology, China; Zhejiang University, China

- P1302 Spiking Inception Module for Multi-layer Unsupervised Spiking Neural Networks [#20706]**
Mingyuan Meng, Xingyu Yang, Shanlin Xiao and Zhiyi Yu
Sun Yat-sen University, China
- P1303 A critical survey of STDP in Spiking Neural Networks for Pattern Recognition [#21590]**
Vigneron Alexandra and Martinet Jean
Universite de Lille, France; Universite Cote d'Azur, France
- P1304 Online Evolving Spiking Neural Networks for Incremental Air Pollution Prediction [#21817]**
Piotr S. Maciag, Marzena Kryszkiewicz and Robert Bembenik
Warsaw University of Technology, Poland
- P1305 Minibatch Processing for Speed-up and Scalability of Spiking Neural Network Simulation [#21640]**
Daniel Saunders, Cooper Sigrist, Kenneth Chaney, Robert Kozma and Hava Siegelmann
BINDS Lab, UMass Amherst, Amherst, MA, USA and Fomoro AI, San Francisco, CA, USA, United States; BINDS Lab, UMass Amherst, Amherst, MA, USA, United States; GRASP, University of Pennsylvania, Philadelphia, PA, USA, United States; BINDS Lab, UMass Amherst, Amherst, MA, USA and CLION, University of Memphis, Memphis, TN, USA, United States
- P1306 Neural Coding: Adapting Spike Generation for Embedded Hardware Classification [#21535]**
Nassim Abderrahmane and Benoit Miramond
University of Cote d'Azur, CNRS, LEAT, France, France
- P1307 Classifying Neuromorphic Datasets with Tempotron and Spike Timing Dependent Plasticity [#21743]**
Laxmi R. Iyer and Yansong Chua
Institute of Infocomms Research, Singapore; Huawei Technologies, China
- P1308 Sleep Stage Classification using NeuCube on SpiNNaker: a Preliminary Study [#21017]**
Sugam Budhraj, Basabdatta Sen Bhattacharya, Simon Durrant, Zohreh Dobarjeh, Maryam Dobarjeh and Nikola Kasabov
BITS Pilani, Goa Campus, India; University of Lincoln, United Kingdom; The University of Auckland, New Zealand; Auckland University of Technology, New Zealand
- P1309 Recognizing Scoring in Basketball Game from AER Sequence by Spiking Neural Networks [#21222]**
Jiangrong Shen, Yu Zhao, Jian Liu and Yueming Wang
The College of Computer Science and Technology, the Qiushi Academy for Advanced Studies, Zhejiang University; Centre for Systems Neuroscience, Department of Neuroscience, Psychology and Behaviour, University of Leicester., China; The College of Computer Science and Technology, the Qiushi Academy for Advanced Studies, Zhejiang University., China; Centre for Systems Neuroscience, Department of Neuroscience, Psychology and Behaviour, University of Leicester., United Kingdom; The Qiushi Academy for Advanced Studies, Zhejiang University; State Key Lab of CAD&CG, Zhejiang University; Zhejiang Lab., China
- P1310 Improving STDP-based Visual Feature Learning with Whitening [#21791]**
Pierre Falez, Pierre Tirilly and Ioan Marius Bilasco
Universite de Lille - CNRS - Centrale Lille - UMR 9189 - CRIStAL - Centre de Recherche en Informatique, Signal et Automatique de Lille, France
- P1311 Faster and Simpler SNN Simulation with Work Queues [#20016]**
Dennis Bautembach, Iason Oikonomidis, Nikolaos Kyriazis and Antonis Argyros
FORTH-ICS & CSD-UOC, Greece; FORTH-ICS, Greece

- P1312 Automated Design of Neuromorphic Networks for Scientific Applications at the Edge [#20577]**
 Catherine Schuman, J. Parker Mitchell, Maryam Parsa, James Plank, Samuel Brown, Garrett Rose, Robert Patton and Thomas Potok
 Oak Ridge National Laboratory, United States; Purdue University, United States; University of Tennessee, United States
- P1313 Implementing a foveal-pit inspired filter in a Spiking Convolutional Neural Network: a preliminary study [#21556]**
 Shriya Gupta and Basabdatta Bhattacharya
 BITS Pilani Goa Campus, India
- P1314 Application of Spiking Neural Networks for Action Recognition from Radar Data [#21391]**
 Dighanchal Banerjee, Smriti Rani, Arun M. George, Arijit Chowdhury, Sounak Dey, Arijit Mukherjee, Tapas Chakravarty and Arpan Pal
 TCS Research & Innovation, India
- P1315 A Hardware/Application Overlay Model for Large-Scale Neuromorphic Simulation [#20607]**
 Alexander Rast, Mahyar Shahsavari, Graeme M. Bragg, Mark L. Vousden, David Thomas and Andrew Brown
 Oxford Brookes University, United Kingdom; Imperial College London, United Kingdom; University of Southampton, United Kingdom
- P1316 Synaptic Integration of Spatiotemporal Features with a Dynamic Neuromorphic Processor [#21471]**
 Mattias Nilsson, Foteini Liwicki and Fredrik Sandin
 Lulea University of Technology, Sweden
- P1317 PyCARL: A PyNN Interface for Hardware-Software Co-Simulation of Spiking Neural Network [#20903]**
 Adarsha Balaji, Prathyusha Adiraju, HIRAK KASHYAP, Anup Das, Jeffrey Krichmar, Nikil Dutt and Francky Catthoor
 Drexel University, United States; Stichting IMEC Nederland, Netherlands; University of California, Irvine, United States; IMEC, Belgium
- P1318 Bio-inspired Gait Imitation of Hexapod Robot using Event-Based Vision Sensor and Spiking Neural Network [#21858]**
 Justin L. Ting, Yan Fang, Ashwin Sanjay Lele and Arijit Raychowdhury
 Georgia Institute of Technology, United States
- P1319 An Efficient Spiking Neural Network for Recognizing Gestures with a DVS Camera on the Loihi Neuromorphic Processor [#21574]**
 Riccardo Massa, Alberto Marchisio, Maurizio Martina and Muhammad Shafique
 Politecnico di Torino, Italy; TU Wien, Austria
- P1320 Toward Hardware Spiking Neural Networks with Mixed-Signal Event-Based Learning Rules [#21567]**
 Pierre Lewden, Adrien F Vincent, Charly Meyer, Jean Tomas and Sylvain Saighi
 Laboratoire IMS, Univ. Bordeaux, Bordeaux INP, CNRS, France
- P1321 Leveraging the Manycore Architecture of the Loihi Spiking Processor to Perform Quasi-Complete Constraint Satisfaction [#21635]**
 Chris Yakopcic, Nayim Rahman, Tanvir Atahary, Tarek M. Taha and Scott Douglass
 University of Dayton, United States; Air Force Research Lab, United States

Plenary Poster Session I-P8:

Tuesday, July 21, 2:30PM-4:30PM, Room: IJCNN Poster Room 2, Chair: Joao Bertini

- P1501 Conventional and Structure Based Sentiment Analysis: A Survey [#20474]**
Omar Ali, Alexander Gegov, Haig Ella and Khusainov Rinat
University of Portsmouth, School of Computing, United Kingdom
- P1502 IARNet: An Information Aggregating and Reasoning Network over Heterogeneous Graph for Fake News Detection [#20714]**
Yu Junshuai, Huang Qi, Zhou Xiaofei and Sha Ying
Institute of Information Engineering, Chinese Academy of Sciences, China; Huazhong Agricultural University, China
- P1503 Discriminative Feature Pyramid Network For Object Detection In Remote Sensing Images [#20825]**
Xiaoqian Zhu, Xiangrong Zhang, Tianyang Zhang, Peng Zhu, Xu Tang and Chen Li
Xidian University, China; Xi'an Jiaotong University, China
- P1504 Sentiment-Driven Price Prediction of the Bitcoin based on Statistical and Deep Learning Approaches [#20356]**
Giulia Serafini, Ping Yi, Qingquan Zhang, Marco Brambilla, Jiayue Wang, Yiwei Hu and Beibei Li
Shanghai Jiao Tong University, China; University of Illinois, United States; Politecnico di Milano, Italy; Beijing International Studies University, China; University of California, United States; Carnegie Mellon University, United States
- P1505 Cluster Developing 1-Bit Matrix Completion [#21793]**
Chengkun Zhang, Junbin Gao and Steven Lu
the Univerisity of Sydney, Australia
- P1506 Scene Text Recognition by Attention Network with Gated Embedding [#20836]**
Cong Wang and Cheng-Lin Liu
Institute of Automation of Chinese Academy of Sciences, China
- P1507 An End-to-End Approach for Recognition of Modern and Historical Handwritten Numeral Strings [#20232]**
Andre G. Hochuli, Alceu S. Britto Jr., Jean P. Barddal, Luiz E. S. Oliveira and Robert Sabourin
Pontificia Universidade Catolica do Parana, Brazil; Universidade Federal do Parana, Brazil; Ecole de Technologie Superieure, Canada
- P1508 Cross-Domain Recommendation with Multiple Sources [#21751]**
Qian Zhang, Jie Lu and Guangquan Zhang
University of Technology Sydney, Australia
- P1509 Early Failure Detection of Belt Conveyor Idlers by Means of Ultrasonic Sensing [#20857]**
Daniel Ericeria, Filipe Rocha, Andrea Bianchi and Gustavo Pessin
Federal University of Ouro Preto, Brazil; Federal University of Rio de Janeiro, Brazil; Instituto Tecnologico Vale, Brazil
- P1510 Information Enhanced Graph Convolutional Networks for Skeleton-based Action Recognition [#21089]**
Dengdi Sun, Fanchen Zeng, Zhuanlian Ding, Jin Tang and Bin Luo
Anhui University, China
- P1511 Personalized Destination Prediction Using Transformers in a Contextless Data Setting [#20082]**
Athanasios Tsiligkaridis, Jing Zhang, Hiroshi Taguchi and Daniel Nikovski
Boston University, United States; Mitsubishi Electric Research Labs, United States; Mitsubishi Electric Corporation, Japan

- P1512 Improving the Style Adaptation for Unsupervised Cross-Domain Person Re-Identification [#20258]**
Wenyuan Zhang, Li Zhu and Lu Lu
Xi'an Jiaotong University, China
- P1513 Low Resolution Handwritten Digit String Recognition based on Object Detection Network [#21314]**
Yingjie Xu and Jun Guo
East China Normal University, China
- P1514 Transfer Learning in Smart Home Scenario [#21280]**
Sonia Sonia and Rashmi Dutta Baruah
University of Petroleum and Engineering Dehradun, India; Indian Institute of Technology Guwahati, India
- P1515 Machine Learning Algorithms in Quantum Computing: A Survey [#21372]**
Somayeh Bakhtiari Ramezani, Alexander Sommers, Harish Kumar Manchukonda, Shahram Rahimi and Amin Amirlatifi
Mississippi State University, United States
- P1516 Predicting Gentrification in Mexico City using Neural Networks [#21803]**
Leon Palafox and Pedro Ortiz-Monasterio
Universidad Panamericana, Facultad de Ingenieria, Mexico

Session I-R13: Deep neural networks

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 1, Chair: Wei Lu, Yan Hu

- 4:45PM Lightweight Action Recognition with Sequence-Specific Global Context [#20362]**
Yao Chen, Hefei Ling, Jiazhong Chen, Lei Wu and Yuxuan Shi
Huazhong University of Science and Technology, China
- 5:05PM End-to-End JPEG Decoding and Artifacts Suppression Using Heterogeneous Residual Convolutional Neural Network [#20059]**
Jun Niu
Amazon.com, Inc., United States
- 5:25PM An Improved Template Representation-based Transformer for Abstractive Text Summarization [#21657]**
Jiaming Sun, Yunli Wang and Zhoujun Li
Beihang University, China
- 5:45PM Component Analysis for Visual Question Answering Architectures [#20925]**
Camila Kolling, Jonatas Wehrmann and Rodrigo C. Barros
Pontificia Universidade Catolica do Rio Grande do Sul, Brazil
- 6:05PM Feature Map Transform Coding for Energy-Efficient CNN Inference [#20035]**
Brian Chmiel, Chaim Baskin, Evgenii Zheltonozhskii, Ron Banner, Yevgeny Yermolin, Alex Karbachevsky, Alex M. Bronstein and Avi Mendelson
Intel -- Artificial Intelligence Products Group (AIPG), Israel; Technion -- Israel Institute of Technology, Israel
- 6:25PM Multi-type Feature Mining and Fusion Model for Temporal Prediction [#21083]**
Wei Lu and Yan Hu
University of Electronic Science and Technology of China, China

Special Session I-SS4B: Feature Extraction and Learning on Image and Text Data

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 2, Chair: Mukesh Prasad

4:45PM Deep Analysis of Handwriting Notes for Early Diagnosis of Neurological Disorders [#21698]

Kamran Iqra, Saeeda Naz and Razzak Imran
GPGCC, Pakistan; GPGCC, Australia; Deakin, Australia

5:05PM A Pilot Study for Investigating Gait Signatures in Multi-Scenario Applications [#21088]

Sumit Hazra, Priyankar Roy, Anup Nandy and Rafal Scherer
MIBM Lab, Dept. of CSE, National Institute Of Technology, Rourkela, India; Dept. of Information Technology, IEST Shibpur, Howrah, India; Czestochowa University of Technology, Poland

5:25PM DRG2vec: Learning Word Representations from Definition Relational Graph [#20387]

Xiaobo Shu, Bowen Yu, Zhenyu Zhang and Tingwen Liu
Institute of Information Engineering, Chinese Academy of Sciences. Beijing, China, China

5:45PM A Multi-Population FA for Automatic Facial Emotion Recognition [#21155]

Kamlesh Mistry, Baqar Rizvi, Chris Rook, Sadaf Iqbal, Li Zhang and Colin Paul Joy
Dept. of computer and information sciences, Northumbria University, United Kingdom; Transitional and Clinical Institute- Faculty of Medical Newcastle University, United Kingdom; Dept. of Computer Science & Information System Teesside University, United Kingdom

6:05PM Improving Image Autoencoder Embeddings with Perceptual Loss [#20229]

Gustav Grund Pihlgren, Fredrik Sandin and Marcus Liwicki
Luleå University of Technology, Sweden

6:25PM Relative Vehicle Velocity Estimation using Monocular Video Stream [#20731]

Deepak Kumar Jain, Rachna Jain, Linqin Cai, Meenu Gupta and Yash Upadhyay
Chongqing University of Posts and Telecommunications, China; Bharati Vidyapeeth's College of Engineering, India; Chandigarh University, India

Special Session I-SS42: Artificial Neural Networks for Healthcare and Bio-signals Analysis

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 3, Chair: Francesco Carlo Morabito

4:45PM A comparative analysis of multi-backbone Mask R-CNN for surgical tools detection [#21295]

Gioele Ciaparrone, Francesco Bardozzo, Mattia Delli Priscoli, Juanita Londono Kallewaard, Maycol Ruiz Zuluaga and Roberto Tagliaferri
DISA-MIS, University of Salerno, Italy; Faculty of Engineering, Technological University of Pereira, Colombia

5:05PM 1D Convolutional Neural Network approach to classify voluntary eye blinks in EEG signals for BCI applications [#21315]

Michele Lo Giudice, Giuseppe Varone, Cosimo Ieracitano, Nadia Mammone, Arcangelo Ranieri Bruna, Valeria Tomaselli and Francesco Carlo Morabito
Magna Graecia University of Catanzaro, Italy; Mediterranean University of Reggio Calabria, Italy; STMicroelectronics, Italy

5:25PM Motor strength classification with machine learning approaches applied to anatomical neuroimages [#21362]

Francesco Bardozzo, Sebastian Cano Uribe, Andrea G. Russo, Mateo Jimenez Castano, Mattia Delli Priscoli, Fabrizio Esposito and Roberto Tagliaferri
University of Salerno, Italy; UTP, Colombia

5:45PM Towards Uncovering Feature Extraction From Temporal Signals in Deep CNN: the ECG Case Study [#21580]

Jacopo Ferretti, Pietro Barbiero, Vincenzo Randazzo, Giansalvo Cirrincione and Eros Pasero
Dipartimento di Scienze Chirurgiche, Universita di Torino, Italy; Department of Mathematical Sciences, Politecnico di Torino, Italy; DET, Politecnico di Torino, Italy; Lab. LTI, University of Picardie Jules Verne, France; Elpro, Italy

6:05PM Unveiling Parkinson's Disease Features from a Primate Model with Deep Neural Networks [#21615]

Caetano Mazzoni Ranieri, Renan Cipriano Moioli, Roseli Aparecida Francelin Romero, Mariana Ferreira Pereira de Araujo, Maxwell Barbosa de Santana, Jhielson Montino Pimentel and Patricia Amancio Vargas

University of Sao Paulo, Brazil; Federal University of Rio Grande do Norte, Brazil; Federal University of Espirito Santo, Brazil; Federal University of Western Para, Brazil; Heriot Watt University, United Kingdom

6:25PM A Convolutional Neural Network based self-learning approach for classifying neurodegenerative states from EEG signals in dementia [#21962]

Cosimo Ieracitano, Nadia Mammone, Amir Hussain and Francesco Carlo Morabito
University Mediterranea of Reggio Calabria, Italy; Edinburgh Napier University, United Kingdom

Special Session I-SS12: Cybersecurity in Complex Environments

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 4, Chair: Francesco Mercaldo

4:45PM Hourly Global Solar Radiation Reconstruction Applying Machine Learning [#20844]

Francesco Mercaldo, Antonella Santone, Francesco Tariello and Vanoli Giuseppe Peter
IIT-CNR, Italy; University of Molise, Italy

5:05PM Malicious Collusion Detection in Mobile Environment by means of Model Checking [#20847]

Rosangela Casolare, Fabio Martinelli, Francesco Mercaldo and Antonella Santone
University of Molise, Italy; IIT-CNR, Italy

5:25PM Identify Potential Attacks from Simulated Log Analysis [#21448]

Cinzia Bernardeschi, Andrea Domenici, Francesco Mercaldo and Antonella Santone
University of Pisa, Italy; IIT-CNR, Italy; University of Molise, Italy

5:45PM Enhanced Privacy and Data Protection using Natural Language Processing and Artificial Intelligence [#21548]

Fiammetta Marulli, Stefano Marrone, Fabio Martinelli, Antonella Santone and Francesco Mercaldo
University of Campania, Italy; IIT-CNR, Italy; University of Molise, Italy

6:05PM DQR: Deep Q-Routing in Software Defined Networks [#21253]

Syed Qaisar Jalil, Mubashir Husain Rehmani and Stephan Chalup
School of Electrical Engineering and Computing, The University of Newcastle, Australia;
Department of Computer Science, Cork Institute of Technology (CIT), Ireland

6:25PM Machine Learning Based MIMO Equalizer for High Frequency (HF) Communications [#21812]

Samuel Spillane, Jung Kristopher, Bowers Kate, Peken Ture, Marefat Michael and Bose Tamal
University of Massachusetts Dartmouth, United States; Indiana University, United States;
Oberlin College, United States; University of Arizona, United States

Special Session I-SS49: Validation, Explanation and Correction of Artificial Intelligence Systems

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 5, Chair: Ivan Tyukin

4:45PM Artificial Neural Network Pruning to Extract Knowledge [#20541]

Evgeny M. Mirkes
University of Leicester, United Kingdom

5:05PM Machine learning evaluating evolutionary fitness in complex biological systems [#20933]

Oleg Kuzenkov, Andrew Morozov and Galina Kuzenkova
Lobachevsky State University of Nizhni Novgorod, Russia; University of Leicester, United Kingdom

5:25PM Linear and Fisher Separability of Random Points in the d-dimensional Spherical Layer [#20953]

Sergey Sidorov and Nikolai Zolotykh
Lobachevsky State University of Nizhni Novgorod, Russia

5:45PM Local intrinsic dimensionality estimators based on concentration of measure [#21312]

Jonathan Bac and Andrei Zinovyev
Institut Curie, France

6:05PM Eigen-CAM: Class Activation Map using Principal Components [#20103]

Mohammed Bany Muhammad and Mohammed Yeasin
University of Memphis, United States

6:25PM Risk and Trust Perceptions of the Public of Artificial Intelligence Applications [#20374]

Keeley Crockett, Matt Garratt, Annabel Latham, Edwin Colyer and Sean Goltz
Manchester Metropolitan University, United Kingdom; University of New South Wales, Australia; Manchester Metropolitan University, United Kingdom; Edith Cowan University, Australia

Session I-R14: Unsupervised learning and clustering 1

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 6, Chair: Jeffrey Chan

4:45PM Supervised Discriminative Sparse PCA with Adaptive Neighbors for Dimensionality Reduction [#20127]

Zhenhua Shi, Dongrui Wu, Jian Huang, Yu-Kai Wang and Chin-Teng Lin
Huazhong University of Science and Technology, China; University of Technology, Sydney, Australia

5:05PM Hubness-based Sampling Method for Nystrom Spectral Clustering [#20573]

Hongmin Li, Xiucai Ye, Akira Imakura and Tetsuya Sakurai
University of Tsukuba, Japan

5:25PM Improving Single and Multi-View Blockmodelling by Algebraic Simplification [#21719]

Rishabh Ramteke, Peter J. Stuckey, Jeffrey Chan, Ramamohanarao Kotagiri, James Bailey, Christopher Leckie and Emir Demirovic
Indian Institute of Technology, Bombay, India; Monash University, Australia; RMIT University, Australia; University of Melbourne, Australia

5:45PM Anomaly Detection in Trajectory Data with Normalizing Flows [#21507]

Madson Dias, Cesar Lincoln Mattos, Ticiana da Silva, Jose Antonio Macedo and Wellington Silva
Federal University of Ceara, Brazil; National Department of Public Security, Brazil

6:05PM A Structure of Restricted Boltzmann Machine for Modeling System Dynamics [#20809]

Guillaume Padiolleau, Olivier Bach, Alain Hugget, Denis Penninckx and Frederic Alexandre
CEA-CESTA, France; INRIA, France

6:25PM Dual-Triplet Metric Learning for Unsupervised Domain Adaptation in Video Face Recognition [#21868]

George Ekladios, Hugo Lemoine, Eric Granger, Kaveh Kamali and Salim Moudache
ETS, Canada; Nuvoola, Canada

Session I-R15: Learning, Memory, Spatial Cognition

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Room 7, Chair: Jeffrey Krichmar

4:45PM Knowledge-based Context-aware Multi-turn Conversational Model with Hierarchical Attention [#20198]

Chunquan Chen and Si Li
Beijing University of Posts and Telecommunications, China

5:05PM Discrete Memory Addressing Variational Autoencoder for Visual Concept Learning [#20646]

Yanze Min, Hang Su, Jun Zhu and Bo Zhang
Tsinghua University, China

5:25PM A Computational Model for Latent Learning based on Hippocampal Replay [#20506]

Pablo Scleidorovich, Martin Llofriu, Jean Marc Fellous and Alfredo Weitzenfeld
University of South Florida, United States; University of Arizona, United States

5:45PM One Shot Spatial Learning through Replay in a Hippocampus-Inspired Reinforcement Learning Model [#21809]

Adedapo Alabi, Ali Minai and Dieter Vanderelst
University of Cincinnati, United States

6:05PM Neuromodulated Patience for Robot and Self-Driving Vehicle Navigation [#20552]

Jinwei Xing, Xinyun Zou and Jeffrey Krichmar
University of California, Irvine, United States

6:25PM Autonomous Programming for General Purposes: Theory and Experiments [#21884]

Juyang Weng, Zejia Zheng, Wu Xiang and Castro-Garcia Juan
Michigan State University, United States; Nanjing University of Science and Technology, China

Plenary Poster Session I-P9: Deep neural networks

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Poster Room 1, Chair: Xu Zhang

P1701 Crowd Flow Forecasting with Multi-Graph Neural Networks [#20255]

Xu Zhang, Ruixu Cao, Zuyu Zhang and Ying Xia
Chongqing University of Posts and Telecommunications, China

P1702 Stylised Image Generation From Deep Neural Networks [#20591]

Yameng Peng and Vic Ciesielski
RMIT University, Australia

P1703 Transformation Based Deep Anomaly Detection in Astronomical Images [#21959]

Esteban Reyes and Pablo Estevez
Universidad de Chile, Chile

P1704 Adaptive Pooling Is All You Need: An Empirical Study on Hyperparameter-insensitive Human Action Recognition Using Wearable Sensors [#20487]

Mubarak G. Abdu-Aguye, Walid Gomaa, Yasushi Makihara and Yasushi Yagi
Ahmadu Bello University, Nigeria; Egypt-Japan University of Science and Technology, Egypt;
The Institute of Scientific and Industrial Research, Osaka University, Japan

- P1705 Dynamic Graph Attention-Aware Networks for Session-Based Recommendation [#21855]**
Ahed Abugabah, Xiaochun Cheng and Jianfeng Wang
Zayed University, United Arab Emirates; Middlesex University, United Kingdom; Sun Yat-sen University, China
- P1706 Squeezed Deep 6DoF Object Detection using Knowledge Distillation [#21583]**
Heitor Felix, Walber Rodrigues, David Macedo, Francisco Simoes, Adriano Oliveira, Veronica Teichrieb and Cleber Zanchettin
Voxar Labs, Centro de Informatica, Universidade Federal de Pernambuco, Recife, Brazil; RoboCIn, Centro de Informatica, Universidade Federal de Pernambuco, Recife, Brazil; Centro de Informatica, Universidade Federal de Pernambuco, Recife, Brazil; Instituto Federal de Pernambuco - Campus Belo Jardim, Belo Jardim, Brazil
- P1707 Learning Arithmetic Operations With A Multistep Deep Learning [#21566]**
Bastien Nollet, Mathieu Lefort and Frederic Armetta
LIRIS, France
- P1708 A Classification Surrogate Model based Evolutionary Algorithm for Neural Network Structure Learning [#20403]**
Wenyue Hu, Aimin Zhou and Guixu Zhang
East China Normal University, China
- P1709 Stochastic Adversarial Learning for Domain Adaptation [#20638]**
Jen-Tzung Chien and Ching-Wei Huang
National Chiao Tung University, Taiwan
- P1710 Construct Convolutional Neural Networks Using Low-yield Binary Memristor Crossbars [#20775]**
Sheng-Yang Sun, Hui Xu, Jiwei Li, Qingjiang Li, Hongqi Yu and Haijun Liu
National University of Defense Technology, China
- P1711 EvoQ: Mixed Precision Quantization of DNNs via Sensitivity Guided Evolutionary Search [#20784]**
Yong Yuan, Chen Chen, Xiyuan Hu and Silong Peng
Institute of Automation, Chinese Academy of Sciences, China
- P1712 Cross Message Passing Graph Neural Network [#20576]**
Zeyu Zhang, Zheng Liu, Qiyun Zhou and Yanwen Qu
School of Computer Information and Engineering, Jiangxi Normal University, China; Jiangsu Key Laboratory of BDSIP, Nanjing University of Posts and Telecommunications, China
- P1713 Towards Best Practice in Explaining Neural Network Decisions with LRP [#21469]**
Maximilian Kohlbrenner, Alexander Bauer, Shinichi Nakajima, Alexander Binder, Wojciech Samek and Sebastian Lapuschkin
Fraunhofer Heinrich Hertz Institute, Germany; Technische Universitaet Berlin, Germany; Singapore University of Technology and Design, Singapore
- P1714 Efficient Evolution for Neural Architecture Search [#21850]**
Zihao Chen and Bin Li
University of Science and Technology of China, China
- P1715 Predicting Solar X-ray Flux Using Deep Learning Techniques [#21866]**
Sumi Dey and Olac Fuentes
University of Texas at El Paso, United States

Plenary Poster Session I-P10:

Tuesday, July 21, 4:45PM-6:45PM, Room: IJCNN Poster Room 2, Chair: Hoon Chung

- P1901 Multi-Dialect Arabic Speech Recognition [#20118]**
Abbas Raza Ali
Bournemouth University, United Kingdom
- P1902 End-to-End Phoneme Recognition using Models from Semantic Image Segmentation [#21784]**
Wei Gao, Ahmad Hashemi-Sakhtsari and Mark D. McDonnell
University of South Australia, Australia; Defence Science and Technology Group, Australia
- P1903 Semi-supervised Training for Sequence-to-Sequence Speech Recognition Using Reinforcement Learning [#20011]**
Hoon Chung, Hyeong-Bae Jeon and Jeon Gue Park
ETRI, Korea (South)
- P1904 Vocoder-free End-to-End Voice Conversion with Transformer Network [#21847]**
June-Woo Kim, Ho-Young Jung and Minho Lee
Kyungpook National University, Korea (South)
- P1905 Two-stage Strategy for Small-footprint Wake-up-word Speech Recognition System [#20900]**
Xinya You, Yajie Zhao and Mingyuan Sun
Heilongjiang University, China; Columbia University, United States; Northeastern University, China
- P1906 Attention-based WaveNet-CTC for Tibetan multi-dialect multitask speech recognition [#21039]**
Jianjian Yue, Yue Zhao, Xiaona Xu, Licheng Wu, Xiali Li, Bo Liu and Qiang Ji
Minzu University of China, China; Rensselaer Polytechnic Institute, United States
- P1907 Effective Post-Training Quantization Of Neural Networks For Inference on Low Power Neural Accelerator [#20920]**
Alexander Demidovskij and Smirnov Eugene
Higher School of Economics, Russia; Intel Corporation, Russia
- P1908 Real-time Trajectory Tracking of a Quadrotor using Adaptive Backstepping Controller and RNN based Uncertainty Observer [#21844]**
Subhash Chand Yogi, Vibhu Kumar Tripathi, Archit Krishna Kamath and Laxmidhar Behera
Indian Institute of Technology Kanpur, India
- P1909 Learning to Play Precision Ball Sports from scratch: a Deep Reinforcement Learning Approach [#21097]**
Liliana Antao, Armando Sousa, Luis Paulo Reis and Gil Goncalves
SYSTEC - Research Center for Systems and Technologies, Portugal; INESC TEC - INESC Technology and Science, Portugal; LIACC - Artificial Intelligence and Computer Science Laboratory, Portugal
- P1910 Combined Online and Offline Inverse Dynamics Learning for a Robot Manipulator [#21862]**
Amrut Sekhar Panda, Ravi Prakash, Laxmidhar Behera and Ashish Dutta
Indian Institute of Technology Kanpur, India
- P1911 A Few-shot Dynamic Obstacle Avoidance Strategy in Unknown Environments [#20206]**
Xiaoxiao Li, Sheng Bi, Yongxing Wang, Min Dong and Zhangshao Chen
South China University of Technology, China

- P1912 Low-Quality Rendering-Driven 6D Object Pose Estimation from Single RGB Image [#21096]**
Guoyu Zuo, Chengwei Zhang, Hongxing Liu and Daoxiong Gong
Beijing University of Technology, China
- P1913 Control of Complex Nonlinear Dynamic Systems with Incremental Deep Learning Neural Networks [#20068]**
Antonio Moran and Masao Nagai
Pontifical Catholic University of Peru, Peru; Tokyo University of Agriculture and Technology, Japan
- P1914 GRANT: Ground-Roaming Autonomous Neuromorphic Targeter [#20523]**
Jonathan Ambrose, Adam Foshie, Mark Dean, James Plank, Garrett Rose, John Mitchell, Catherine Schuman and Grant Bruer
The University of Tennessee, United States; Oak Ridge National Laboratory, United States; Georgia Institute of Technology, United States
- P1915 Indoor Navigation for Mobile Agents: A Multimodal Vision FusionModel [#20719]**
Dongfang Liu, Yiming Cui, Zhiwen Cao and Yingjie Chen
Purdue University, United States; University of Florida, United States
- P1916 A comparative evaluation of time-delay, deep learning and echo state neural networks when used as simulated transhumeral prosthesis controllers [#21073]**
Charles Day, Edward Chadwick and Dimitra Blana
Keele University, United Kingdom; University of Aberdeen, Scotland
- P1917 Neural Network Control of Teleoperation Systems with Delay and Uncertainties based on Multilayer Perceptron Estimations [#20758]**
Parham Kebria, Abbas Khosravi and Saeid Nahavandi
IISRI, Deakin University, Australia
- P1918 Temporal Fusion Pointer network-based Reinforcement Learning algorithm for Multi-Objective Workflow Scheduling in the cloud [#20278]**
Binyang Wang, Huifang Li, Zhiwei Lin and Yuanqing Xia
Beijing Institute of Technology, China
- P1919 Approximating Optimisation Solutions for the Travelling Officer Problem with Neural Networks [#21565]**
Wei Shao, Jeffrey Chan and Flora Salim
School of Science, RMIT University, Australia

Session I-R16: Deep neural networks

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 1, Chair: Zeyu Zhang, Zheng Liu

- 7:00PM Adversarial Named Entity Recognition with POS label embedding [#20703]**
Yuxuan Bai, Yu Wang, Bin Xia, Yun Li and Ziyu Zhu
Nanjing University of Posts and Telecommunications, China
- 7:20PM RegionSparse: Leveraging Sparse Coding and Object Localization to Counter Adversarial Attacks [#21055]**
Yunjian Zhang, Yanwei Liu, Liming Wang, Zhen Xu and Qiuqing Jin
Institute of Information Engineering, Chinese Academy of Sciences; School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences, China

7:40PM Unseen Target Stance Detection with Adversarial Domain Generalization [#20153]
Zhen Wang, Qiansheng Wang, Chengguo Lv, Xue Cao and Guohong Fu
Heilongjiang University, China; Institute of Artificial Intelligence, Soochow University, China

8:00PM Dynamic Global-Local Attention Network Based On Capsules for Text Classification [#20060]
Ji Wang, Qiaohong Chen, Haolei Pei, Qi Sun and Yubo Jia
Zhejiang Sci-Tech University, China

8:20PM A Transformer based Approach for Identification of Tweet Acts [#21266]
Tulika Saha, Aditya Prakash Patra, Sriparna Saha and Pushpak Bhattacharyya
IIT Patna, India

8:40PM Cognitive Analysis of Mental States of People According to Ethical Decisions Using Deep Learning Approach [#21345]
Dipayan Dewan, Lidia Ghosh, Biswadeep Chakraborty, Abir Chowdhury, Amit Konar and Atulya K. Nagar
Jadavpur University, India; Liverpool Hope University, United Kingdom

Special Session I-SS6: Bayesian Neural Networks: The Interplay between Bayes' Theorem and Neural Networks

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 2, Chair: Junyu Xuan

7:00PM Amortized Mixture Prior for Variational Sequence Generation [#20644]
Jen-Tzung Chien and Chih-Jung Tsai
National Chiao Tung University, Taiwan

7:20PM CosmoVAE: Variational Autoencoder for CMB Image Inpainting [#20776]
Yi Kai, Guo Yi, Fan Yanan, Hamann Jan and Wang Yu Guang
University of New South Wales, Australia

7:40PM ATT: Attention-based Timbre Transfer [#21116]
Deepak Jain, Akshi Kumar, Linqin Cai, Siddharth Singhal and Vaibhav Kumar
Key Laboratory of Intelligent Air-Ground Cooperative Control for Universities in Chongqing
College of Automation, Chongqing University of Posts and Telecommunications, Chongqing, China; Delhi Technological University, India; Key Laboratory of Industrial Internet of Things and Networked Control, Ministry of Education, Chongqing University of Posts and Telecommunications, Chongqing, China

8:00PM Bayesian Graph Convolutional Neural Network based Patent Valuation Model [#21319]
Weidong Liu, Xin Liu and Wenbo Qiao
Inner Mongolia University, China

8:20PM Fast Switch Naive Bayes to Avoid Redundant Update for Concept Drift Learning [#21705]
Liu Anjin, Zhang Guangquan, Wang Kun and Lu Jie
CAI, FEIT, UTS, Australia

8:40PM The Variational Deficiency Bottleneck [#20941]
Pradeep Kr. Banerjee and Guido Montufar
Max Planck Institute for Mathematics in the Sciences, Germany; UCLA, United States

Special Session I-SS38: Adversarial Machine Learning and Cyber Security

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 3, Chair: Wei Liu

7:00PM Lightweight Crypto-Assisted Distributed Differential Privacy for Privacy-Preserving Distributed Learning [#20992]

Lingjuan Lyu

National University of Singapore, Singapore

7:20PM Adversarial Reinforcement Learning under Partial Observability in Autonomous Computer Network Defence [#20306]

Yi Han, David Hubczenko, Paul Montague, Olivier De Vel, Tamas Abraham, Benjamin Rubinstein, Christopher Leckie, Tansu Alpcan and Sarah Erfani

School of Computing and Information Systems, The University of Melbourne, Australia; Defence Science and Technology Group, Australian Department of Defence, Australia; Department of Electrical and Electronic Engineering, The University of Melbourne, Australia

7:40PM Compressive Recovery Defense: Defending Neural Networks Against ℓ_2 , ℓ_∞ , and ℓ_0 Norm Attacks [#21100]

Jasjeet Dhaliwal and Kyle Hambrook

San Jose State University, United States

8:00PM Relative Robustness of Quantized Neural Networks Against Adversarial Attacks [#21429]

Kirsty Duncan, Ekaterina Komendantskaya, Robert Stewart and Michael Lones

Department of Computer Science, Heriot-Watt University, Scotland

8:20PM Detection of Adversarial Examples in Deep Neural Networks with Natural Scene Statistics [#21745]

Anouar Kherchouche, Sid Ahmed Fezza, Wassim Hamidouche and Olivier Deforges

National Institute of Telecommunications and ICT, Algeria; Univ. Rennes, INSA Rennes, CNRS, IETR - UMR 6164, France

8:40PM Targeted Forgetting and False Memory Formation in Continual Learners through Adversarial Backdoor Attacks [#21907]

Muhammad Umer, Glenn Dawson and Robi Polikar

Rowan University, United States

Special Session I-SS15A: Deep Learning and Computational Intelligence for Medical Image Analysis

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 4, Chair: Stanislaw Osowski

7:00PM Textural and Deep Learning Methods in Recognition of Renal Cancer Types Based on CT Images [#20376]

Aleksandra Osowska-Kurczab, Tomasz Markiewicz, Mirosław Dziekiewicz and Malgorzata Lorent

Warsaw University of Technology, Poland; Warsaw University of Technology, Military Institute of Medicine, Poland; Military Institute of Medicine, Poland

7:20PM Multidomain CT Metal Artifacts Reduction Using Partial Convolution Based Inpainting [#20934]

Artem Pimkin, Alexander Samoylenko, Natalia Antipina, Anna Ovechkina, Andrey Golanov, Alexandra Dalechina and Mikhail Belyaev

Skolkovo Institute of Science and Technology, Moscow Institute of Physics and Technology, Russia; Moscow Institute of Physics and Technology, Russia; N.N.Burdenko Center for Neurosurgery, Russia; Lomonosov Moscow State University, Russia; Moscow Gamma Knife Center at N.N.Burdenko Center for Neurosurgery, Russia; Skolkovo Institute of Science and Technology, Russia

- 7:40PM Axis projection for Kidney-Region-Of-Interest detection in computed tomography [#21099]**
Tomasz Les, Tomasz Markiewicz, Miroslaw Dziekiewicz and Malgorzata Lorent
Warsaw University of Technology, Poland; Military Institute of Medicine, Poland
- 8:00PM YOLO and Morphing-based Method for 3D Individualised Bone Model Creation. [#21529]**
Zuzanna Krawczyk and Jacek Starzynski
Warsaw University of Technology, Poland
- 8:20PM PGD-UNet: A Position-Guided Deformable Network for Simultaneous Segmentation of Organs and Tumors [#21688]**
Ziqiang Li, Hong Pan, Yaping Zhu and A. K. Qin
School of Automation, Southeast Univeristy, China; Department of Computer Science and Software Engineering, Swinburne University of Technology, Australia; School of Information and Communication Engineering, Communication University of China, China
- 8:40PM Deep Learning Ensemble for Melanoma Recognition [#20223]**
Stanislaw Osowski and Tomasz Les
Warsaw University of Technology, Military University of Technology, Poland; Warsaw University of Technology, Poland

Special Session I-SC7: CI in Transactive Energy Management and Smart Energy Network (CITESEN 2020)

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 5, Chair: Fanlin Meng

- 7:00PM Attitudinal Choquet Integral-Based Stochastic Multicriteria Acceptability Analysis [#20599]**
Xiaomei Mi, Huchang Liao and Xiao-Jun Zeng
Business School, Sichuan University, Chengdu 610064, China; Department of Computer Science, The Univeristy of Manchester Manchester, M13 9PL, United Kingdom
- 7:20PM Exploring Smart Grid Time-of-Use Tariffs using a Robust Optimisation Framework [#20915]**
Paula Carroll
UCD, Ireland
- 7:40PM Cross-Domain Data Fusion On Distribution Network Voltage Estimation with D-S Evidence Theory [#21263]**
Yuanbin Zhu, Chenghong Gu and Furong Li
The University of Bath, United Kingdom
- 8:00PM An Inverse Prospect Theory Based-Approach for Linear Ordinal Ranking Aggregation with Its Application in Site Selection of Electric Vehicle Charging Station [#20160]**
Nana Liu, Zeshui Xu, Hangyao Wu, Peijia Ren and Fanlin Meng
Business School, Sichuan University, China; School of Business, Adnimistration South China University of Technology, China; Department of Mathematical Sciences, University of Essex, United Kingdom
- 8:20PM Energy Forecasting with Building Characteristics Analysis [#21775]**
Shuang Dai and Fanlin Meng
University of Essex, United Kingdom
- 8:40PM A Computational Intelligence Characterization of Solar Magnetograms [#20887]**
Julio J. Valdes, Ljubomir Nikolic, Simone Disabato and Manual Roveri
National Research Council Canada, Canada; Natural Resources Canada, Canada; Politecnico di Milano, Italy

Session I-R17: Unsupervised learning and clustering 2

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 6, Chair: Jamil Al Shaqsi, Lehel Csato

7:00PM [k\\$-Nearest Neighbor based Clustering with Shape Alternation Adaptivity \[#21849\]](#)

Yifeng Lu, Yao Zhang, Richter Florian and Seidl Thomas
LMU Munich, Germany

7:20PM [Quantum Collaborative K-means \[#21336\]](#)

Kaoutar Benlamine, Younes Bennani, Nistor Grozavu and Basarab Matei
Paris 13 University, France

7:40PM [Tweet to News Conversion: An Investigation into Unsupervised Controllable Text Generation \[#21455\]](#)

Zishan Ahmad, Mukuntha Narayanan Sundararaman, Asif Ekbal and Pushpak Bhattacharyya
Indian Institute of Technology Patna, India

8:00PM [Unified Multi-Domain Learning and Data Imputation using Adversarial Autoencoder \[#20373\]](#)

Andre Mendes, Julian Togelius and Coelho Leandro
New York University, United States; Pontifical Catholic University of Parana, Brazil

8:20PM [An Automatic Type-Inferential General Latent Feature Model \[#21526\]](#)

Neil Dhir, Tomasz Rudny, Davide Zilli and Alessandra Tosi
Alan Turing Institute, United Kingdom; Mind Foundry, United Kingdom

8:40PM [Black-box Evolutionary Search for Adversarial Examples against Deep Image Classifiers in Non-Targeted Attacks \[#21608\]](#)

Stepan Prochazka and Roman Neruda
Institute of Computer Science, Czech Academy of Sciences, Czech Republic

Session I-R18: Semantic Cognition and Symbolic Processing

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Room 7, Chair: Jeff Mitchell

7:00PM [Knowledge Grounded Pre-Trained Model For Dialogue Response Generation \[#20725\]](#)

Yanmeng Wang, Wenge Rong, Jianfei Zhang, Yuanxin Ouyang and Zhang Xiong
Beihang University, China

7:20PM [RAD: Reinforced Attention Decoder Model On Question Generation \[#20746\]](#)

Xin Li, Zhen Huang, Feng Liu, Changjian Wang, Minghao Hu, Shiyi Xu and Yuxing Peng
Science and Technology on Parallel and Distributed Laboratory, National University of Defense Technology, China

7:40PM [Distantly-Supervised Neural Relation Extraction with Side Information using BERT \[#21337\]](#)

Johny Moreira, Chaina Oliveira, David Macedo, Cleber Zanchettin and Luciano Barbosa
Universidade Federal de Pernambuco, Brazil

8:00PM [Reinforcement-based Program Induction in a Neural Virtual Machine \[#20895\]](#)

Garrett Katz, Khushboo Gupta and James Reggia
Syracuse University, United States; Pacific Northwest National Laboratory, United States; University of Maryland, United States

8:20PM [Harnessing the Symmetry of Convolutions for Systematic Generalisation \[#21288\]](#)

Jeff Mitchell and Jeffrey S. Bowers
University of Bristol, United Kingdom

8:40PM Composing Bossa Nova by Evolutionary Computation [#21164]

Yu-Wei Wen and Chuan-Kang Ting

National Chung Cheng University, Taiwan; National Tsing Hua University, Taiwan

Plenary Poster Session I-P11: Deep neural networks

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Poster Room 1, Chair: Carlos Pereira

P2101 Efficient Neural Architecture for Text-to-Image Synthesis [#21498]

Douglas M. Souza, Jonatas Wehrmann and Duncan D. Ruiz

PUCRS, Brazil

P2102 Arbitrary Chinese Font Generation from a Single Reference [#20085]

Zhichen Lai, Chenwei Tang and Jiancheng Lv

College of Computer Science, Sichuan University, China

P2103 HLGSNet: Hierarchical and Lightweight Graph Siamese Network with Triplet Loss for fMRI-based Classification of ADHD [#21879]

Ranjeet Ranjan Jha, Gaurav Jaswal, Aditya Nigam, Arnav Bhavsar, Sudhir K Pathak and Rathish Kumar

Indian Institute of Technology Mandi, India; Indian Institute of Technology Delhi, India; University of Pittsburgh, India; Indian Institute of Technology Kanpur, India

P2104 Attention and Graph Matching Network for Retrieval-Based Dialogue System with Domain Knowledge [#20285]

Xu Li and Jinghua Zhu

Heilongjiang University, China

P2105 Hybrid approach for Anomaly Detection in Time Series Data [#21475]

Zeineb Ghrib, Rakia Jaziri and Rim Romdhane

University of Paris VIII, Paris, France, France; Devoteam, Paris, France, France

P2106 SBN: Scale Balance Network for Salient Object Detection [#20115]

Zhenshan Tan and Xiaodong Gu

Fudan University, China

P2107 A Multi-Task Learning Approach to Improve Sentiment Analysis with Explicit Recommendation [#20288]

Olivier Habimana, Yuhua Li, Ruixuan Li, Xiwu Gu and Peng Yuqi

Huazhong University of Science and Technology, China

P2108 Cross-Scale Correlation Stereo Network [#21913]

Chao Yang, Wenbin Yao and Xiaoyong Li

Beijing University of Posts and Telecommunications, China

P2109 On the Trend-corrected Variant of Adaptive Stochastic Optimization Methods [#20648]

Bingxin Zhou, Xuebin Zheng and Junbin Gao

The University of Sydney, Australia

P2110 A Novel Approach for Automatic Enhancement of Fingerprint Images via Deep Transfer Learning [#21693]

Aldisio Medeiros, Joao Andrade, Paulo Serafim, Alexandre Santos, Jose Maia, Fernando Trinta, Jose Macedo, Pedro Filho and Paulo Rego

Federal University of Ceara, Brazil; Instituto Federal do Ceara, Brazil

P2111 Prediction of Strawberry Yield and Farm Price Utilizing Deep Learning [#21815]

Lobna Nassar, Ifeanyi Okwuchi, Muhammad Saad, Fakhri Karray, Kumaraswamy Ponnambalam and Prarabdhya Agrawal

University of Waterloo, Canada

- P2112 Deep Learning Based Approach for Fresh Produce Market Price Prediction [#21801]**
Lobna Nassar, Ifeanyi Okwuchi, Muhammad Saad, Fakhri Karray and Kumaraswamy Ponnambalam
University of Waterloo, Canada
- P2113 Attention-based 3D Object Reconstruction from a Single Image [#20943]**
Andrey de Aguiar Salvi, Nathan Schneider Gavenski, Eduardo Henrique Pais Pooch, Felipe Roque Tasoniero and Rodrigo Coelho Barros
Pontificia Universidade Catolica do Rio Grande do Sul, Brazil
- P2114 Analysis and Learning of Capsule Networks Robust for Small Image Deformation [#20740]**
Nozomu Ohta, Shin Kawai and Hajime Nobuhara
Department of Intelligent Interaction Technologies, University of Tsukuba, Japan
- P2115 A Novel DNN Training Framework via Data Sampling and Multi-Task Optimization [#21829]**
Boyu Zhang, A. K. Qin, Hong Pan and Timos Sellis
Swinburne University of Technology, Australia
- P2116 Learning Representations using Spectral-Biased Random Walks on Graphs [#20507]**
Charu Sharma, Jatin Chauhan and Manohar Kaul
Indian Institute of Technology Hyderabad, India
- P2117 Improving Expressivity of Graph Neural Networks [#20899]**
Stanislaw Purgal
University of Innsbruck, Austria
- P2118 Pixel-based layer segmentation of complex engineering drawings using convolutional neural networks [#21326]**
Carlos Francisco Moreno-Garcia, Pam Johnston and Bello Garkuwa
Robert Gordon University, United Kingdom

Plenary Poster Session I-P12:

Tuesday, July 21, 7:00PM-9:00PM, Room: IJCNN Poster Room 2, Chair: Romis Attux

- P2301 SAR Image Speckle Reduction based on a Generative Adversarial Network [#20375]**
Ruijiao Liu, Yangyang Li and Licheng Jiao
Xidian University, China
- P2302 Faster alpha-expansion via dynamic programming and image partitioning [#20957]**
Jefferson Fontinele, Marcelo Mendonca, Marco Ruiz, Joao Papa and Luciano Oliveira
UFBA, Brazil; VORTEX-CoLab, Portugal; UNESP, Brazil
- P2303 Scene Attention Mechanism for Remote Sensing Image Caption Generation [#21752]**
Shiqi Wu, Xiangrong Zhang, Xin Wang, Chen Li and Licheng Jiao
Xidian University, China; Xi'an Jiaotong University, China
- P2304 Metric Learning for Electrical Submersible Pump Fault Diagnosis [#20422]**
Lucas Henrique Sousa Mello, Marcos Pellegrini Ribeiro, Thiago Oliveira Santos, Flavio Miguel Varejao and Alexandre Loureiros Rodrigues
Federal University of Espirito Santo, Brazil; Petrobras, Brazil
- P2305 DAGNet: Exploring the Structure of Objects for Saliency Detection [#20441]**
Rao Haobo, Zhou Zhiheng, Li Bo and Shu Xin
School of Electronic and Information Engineering, South China University of Technology, China; College of Information Science and Technology, Nanjing Agricultural University, China
- P2306 Visual Relational Reasoning for Image Caption [#20061]**
Haolei Pei, Qiaohong Chen, Ji Wang, Qi Sun and Yubo Jia
Zhejiang Sci-Tech University, China

- P2307 Distance-Guided Mask Propagation Model for Efficient Video Object Segmentation [#20359]**
 Jiajia Liu, Hongning Dai, Bo Li and Gaozhong Tang
 School of Electronic and Information Engineering, South China University of Technology, China;
 Faculty of Information Technology, Macau University of Science and Technology, China
- P2308 Cross-Domain Adversarial Autoencoder for Fine Grained Category Preserving Image Translation [#20326]**
 Haodi Hou, Jing Huo and Yang Gao
 Nanjing University, China
- P2309 3D Human Pose Estimation based on Center Of Gravity [#20652]**
 Hao Xu and Suping Wu
 Ningxia University, China
- P2310 Convolutional Neural Network with Inception Blocks for Image Compression Artifact Reduction [#21577]**
 Purbaditya Bhattacharya and Udo Zoelzer
 Helmut Schmidt University, Germany
- P2311 Cross-View Gait Recognition Based on U-Net [#21618]**
 Israel Raul Tinini Alvarez and Guillermo Sahonero-Alvarez
 Centro de Investigacion, Desarrollo e Innovacion en Ingenieria Mecatronica – Universidad Catolica Boliviana “San Pablo”, Bolivia
- P2312 A Neural-Network-Based Driver Gaze Classification System with Vehicle Signals [#21554]**
 Simone Dari, Nikolay Kadrileev and Eyke Huellermeier
 BMW Group, Germany; Technical University Munich, Germany; Paderborn University, Germany
- P2313 On Interpretability of Deep Learning based Skin Lesion Classifiers using Concept Activation Vectors [#21595]**
 Adriano Lucieri, Muhammad Naseer Bajwa, Stephan Alexander Braun, Muhammad Imran Malik, Andreas Dengel and Sheraz Ahmed
 German Research Center for Artificial Intelligence GmbH (DFKI), Germany; University Hospital Muenster, Germany; National University of Science and Technology, Pakistan
- P2314 Problems of Representation of Electrocardiograms in Convolutional Neural Networks [#20451]**
 Iana Sereda, Sergey Alekseev, Aleksandra Koneva, Alexey Khorkin and Grigory Osipov
 Nizhny Novgorod State University, Russia; Lobachevsky State University of Nizhny Novgorod - National Research University (UNN), Russia
- P2315 Feature Extraction Evaluation for Two Motor Imagery Recognition Based on Common Spatial Patterns, Time-Frequency Transformations and SVM [#20460]**
 Mario I Chacon-Murguia and Eduardo Rivas-Posada
 Chihuahua Institute of Technology, Mexico
- P2316 Asynchronous Brain Computer Interfaces Using Echo State Networks [#20595]**
 Eyal Zakkay, Amjad Abu-Rmileh, Amir B. Geva and Oren Shriki
 Ben-Gurion University, Israel
- P2317 Unconstrained Arabic Scene Text Analysis in Wild Images using Concurrent Invariant Points [#21894]**
 Saad Ahmed, Saeed Naz, Razzak Imran and Mukesh Prasad
 KSAU-HS, Saudi Arabia; GPGC, Pakistan; Deakin, Australia; UTS, Australia

- P2318 Distributed Machine Learning for Predictive Analytics in Mobile Edge Computing Based IoT Environments [#21895]**
Prabath Abeysekara, Hai Dong and A. K. Qin
RMIT University, Australia; Swinburne University of Technology, Australia
- P2319 Myocardial Infarction Detection and Quantification Based on a Convolution Neural Network with Online Error Correction Capabilities [#21092]**
Shuihua Wang, Gerry McCann and Ivan Tyukin
University of Leicester, United Kingdom
- P2320 Deep Feature Embedding and Hierarchical Classification for Audio Scene Classification [#20942]**
Lam Pham, Ian McLoughlin, Huy Phan, Ramaswamy Palaniappan and Alfred Mertins
School of Computing, University of Kent, United Kingdom; Institute for Signal Processing, Luebeck University, Germany
- P2321 Adaptive Level Set with region analysis via Mask R-CNN: A comparison against classical methods. [#21792]**
Virginia Nunes, Aldisio Medeiros, Hercules Francisco, Gabriel Bezerra and Pedro Reboucas Filho, Instituto Federal do Ceara, Brazil

WEDNESDAY, JULY 22

Session I-R19: Deep neural networks

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 1, Chair: Ariel Ruiz-Garcia

3:30PM Self-Optimisation of Dense Neural Network Architectures: An Incremental Approach. [#20176]

Antonio Garcia Diaz and Hugues Bersini
Universite libre de Bruxelles (ULB), Belgium

3:50PM Enabling Continual Learning with Differentiable Hebbian Plasticity [#21799]

Vithursan Thangarasa, Thomas Miconi and Graham Taylor
University of Guelph, Canada; Uber AI, United States

4:10PM Soft Rotation Equivariant Convolutional Neural Networks [#20152]

Eduardo Castro, Jose Costa Pereira and Jaime S. Cardoso
Institute for Systems and Computer Engineering, Technology and Science (INESCTEC), Portugal

4:30PM Risk-Controlled Selective Prediction for Regression Deep Neural Network Models [#20828]

Wenming Jiang, Ying Zhao and Zehan Wang
Tsinghua University, China

4:50PM Attention-Based Multi-Model Ensemble for Automatic Cataract Detection in B-Scan Eye Ultrasound Images [#20955]

Xiaofei Zhang, Jiancheng Lv, Heng Zheng and Yongsheng Sang
College of Computer science, Sichuan University, China; College of Computer Science, Sichuan University, China; Sichuan Yanting County People's Hospital, China

5:10PM Emotion Recognition from Faces in an Unconstrained Environment for use on Social Robots [#21387]

Nicola Webb, Ariel Ruiz-Garcia, Mark Elshaw and Vasile Palade
Bristol Robotic Lab, United Kingdom; Coventry University, United Kingdom

Special Session I-SS7: Machine Learning Applications in Cyber Security

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 2, Chair: Mohammad Amirhosseini

3:30PM Orthus: A Bimodal Learning Architecture for Malware Classification [#20363]

Daniel Gibert, Carles Mateu and Jordi Planes
University of Lleida, Spain

3:50PM Semi-Supervised Domain-Adversarial Training for Intrusion Detection against False Data Injection in the Smart Grid [#20672]

Yongxuan Zhang and Jun Yan
Concordia University, Canada

4:10PM Explaining AI for Malware Detection: Analysis of Mechanisms of MalConv [#21218]

Shamik Bose, Timothy Barao and Xiuwen Liu
Florida State University, United States

4:30PM Deep Neural Networks for Malicious JavaScript Detection Using Bytecode Sequences [#21252]

Muhammad Fakhrur Rozi, Sangwook Kim and Seiichi Ozawa
Kobe University, Japan

4:50PM Recurrent Neural Networks for Colluded Applications Attack Detection in Android OS Devices [#21275]

Igor Khokhlov, Ninad Ligade and Leon Reznik
Rochester Institute of Technology, United States

5:10PM FLAGB: Focal Loss based Adaptive Gradient Boosting for Imbalanced Traffic Classification [#21281]

Yu Guo, Zhenzhen Li, Zhen Li, Gang Xiong, Minghao Jiang and Gaopeng Gou
Institute of Information Engineering, Chinese Academy of Sciences&School of Cyber Security, University of Chinese Academy of Sciences, China

Special Session I-SS40: Complex-valued and Quaternionic Neural Networks: Theory and Applications

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 3, Chair: Akira Hirose

3:30PM Similar land-form discovery: Complex absolute-value max pooling in complex-valued convolutional neural networks in interferometric synthetic aperture radar [#20478]

Yuki Sunaga, Ryo Natsuaki and Akira Hirose
The University of Tokyo, Japan

3:50PM Impulse Noise Filtering using MLMVN [#20610]

Olivia Keohane and Igor Aizenberg
Manhattan College, United States

4:10PM Constructing Convolutional Neural Networks Based on Quaternion [#21105]

Shuto Hongo, Teijiro Isokawa, Nobuyuki Matsui, Haruhiko Nishimura and Naotake Kamiura
Graduate School of Engineering, University of Hyogo, Japan; University of Hyogo, Japan;
Graduate School of Applied Informatics, University of Hyogo, Japan

4:30PM Time Series Prediction by Quaternionic Qubit Neural Network [#21112]

Takuya Teguri, Teijiro Isokawa, Nobuyuki Matsui, Haruhiko Nishimura and Naotake Kamiura
Graduate School of Engineering, University of Hyogo, Japan; University of Hyogo, Japan;
Graduate School of Applied Informatics, University of Hyogo, Japan

4:50PM Four Models of Hopfield-Type Octonion Neural Networks and Their Existing Conditions of Energy Functions [#20572]

Yasuaki Kuroe, Hitoshi Iima and Yutaka Maeda
Kansai University, Japan; Kyoto Institute of Technology, Japan

5:10PM Extreme Learning Machines on Cayley-Dickson Algebra Applied for Color Image Auto-Encoding [#20869]

Guilherme Vieira and Marcos Eduardo Valle
University of Campinas, Brazil

Special Session I-SS15B: Deep Learning and Computational Intelligence for Medical Image Analysis

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 4, Chair: Stanislaw Osowski

3:30PM A GAN-based Domain Adaptation Method for Glaucoma Diagnosis [#20698]

Sun Yunzhe, Yang Gang, Ding Dayong, Cheng Gangwei, Xu Jieping and Li Xirong
Renmin University of China, China; Vistel AI Lab, Visionary Intelligence Ltd., China; Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, China

- 3:50PM A First Glance to the Quality Assessment of Dental Photostimulable Phosphor Plates with Deep Learning [#21341]**
 Ariana Bermudez, Saul Calderon Ramirez, Trevor Thang, Pascal Tyrrell, Armaghan MoemeniYang, Shengxiang Yang and Jordina Torrents-Barrena
 Instituto Tecnologico de Costa Rica, Costa Rica; De Montfort University, United Kingdom; University of Toronto, Canada; University of Nottingham, United Kingdom; Universitat Rovira i Virgili, Spain
- 4:10PM U-Net and Active Contour Methods for Brain Tumour Segmentation and Visualization [#21053]**
 Estera Kot, Zuzanna Krawczyk, Krzysztof Siwek and Piotr Czwarnowski
 Faculty of Electrical Engineering Warsaw University of Technology, Poland; Nuclear Medicine Department Medical University Of Warsaw, Poland
- 4:30PM MufiNet: Multiscale Fusion Residual Networks for Medical Image Segmentation [#21674]**
 Chun Wang, Zhi Wang, Wei Xi, Zhao Yang, Gairui Bai, Ruimeng Wang and Meichen Duan
 Xi'an Jiaotong University, China; The University of New South Wales, Australia
- 4:50PM Automatic Image Labeling with Click Supervision on Aerial Images [#20508]**
 Krittaphat Pugdeethosapol, Morgan Bishop, Dennis Bowen and Qinru Qiu
 Syracuse University, United States; Air Force Research Laboratory, United States; Technergetics, United States
- 5:10PM End-to-end Multimodel Deep Learning for Malware Classification [#21750]**
 Elijah Snow, Mahbulul Alam, Alexander Glandon and Khan Iftekharuddin
 University of Texas at Dallas, United States; Old Dominion University, United States

Special Session I-SC8: CI for Bioinformatics and Computational Biology

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 5, Chair: Antonello Rizzi

- 3:30PM On the Optimization of Embedding Spaces via Information Granulation for Pattern Recognition [#21500]**
 Alessio Martino, Fabio Massimo Frattale Mascioli and Antonello Rizzi
 University of Rome "La Sapienza", Department of Information Engineering, Electronics and Telecommunications, Italy
- 3:50PM Hybrid Evolutionary Framework for Selection of Genes Predicting Breast Cancer Relapse [#21662]**
 Lorenzo Perino, Silvia Cascianelli and Marco Masseroli
 Politecnico di Milano, Italy
- 4:10PM Parsimonious Computing: A Minority Training Regime for Effective Prediction in Large Microarray Expression Data Sets [#21296]**
 Shailesh Sridhar, Snehanshu Saha, Azhar Shaikh, Rahul Yedida and Sriparna Saha
 PES University, India; BITS Pilani K K Birla Goa Campus, India; North Carolina State University, United States; IIT Patna, India
- 4:30PM A Feature Learning based Technique to Classify Medline Disease Abstracts [#21591]**
 Hisham Al-Mubaid
 UHCL, United States
- 4:50PM Learning and Visualizing Genomic Signatures of Cancer Tumors using Deep Neural Networks [#21555]**
 Tarek Khorshed, Mohamed N. Moustafa and Ahmed Rafea
 The American University in Cairo, Egypt

5:10PM JINS: Jaccard Distance and Instance Normalization based Skin Lesion Segmentation method [#21864]

Joochi Chauhan, Gourav Wadhwa and Puneet Goyal
Indian Institute of Technology Ropar, India

Session I-R20: Reinforcement learning and adaptive dynamic programming 1

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 6, Chair: Minho Lee

3:30PM Language Inference with Multi-head Automata through Reinforcement Learning [#20859]

Alper Sekerci and Ozlem Salehi
Ozyegin University, Turkey

3:50PM The Deep Quality-Value Family of Deep Reinforcement Learning Algorithms [#20322]

Matthia Sabatelli, Gilles Louppe, Pierre Geurts and Marco Wiering
University of Liege, Belgium; University of Groningen, Netherlands

4:10PM Automatic Policy Decomposition through Abstract State Space Dynamic Specialization [#21531]

Rene Sturgeon and Francois Rivest
Royal Military College of Canada, Canada

4:30PM Effective Deep Reinforcement Learning Setups for Multiple Goals on Visual Navigation [#21643]

Luiz Ricardo Takeshi Horita, Denis Fernando Wolf and Valdir Grassi Junior
Sidia Institute of Science and Technology, Brazil; University of Sao Paulo, Brazil

4:50PM Novelty-Guided Reinforcement Learning via Encoded Behaviors [#21434]

Rajkumar Ramamurthy, Rafet Sifa, Max Luebbing and Christian Bauckhage
Fraunhofer IAIS, Germany; Fraunhofer Center for Machine Learning, Germany

5:10PM Maximum Entropy Reinforcement Learning with Evolution Strategies [#20621]

Longxiang Shi, Shijian Li, Qian Zheng, Longbing Cao, Long Yang and Gang Pan
Zhejiang University, China; Nanyang Technological University, Singapore; University of Technology, Sydney, Australia

Session I-R21: Motor Control

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Room 7, Chair: Jun Yamada

3:30PM Autonomous learning and chaining of motor primitives using the Free Energy Principle [#20826]

Louis Annabi, Alexandre Pitti and Mathias Quoy
ETIS UMR 8051, CY University, ENSEA, CNRS, France

3:50PM Neurodynamic Sensory-Motor Phase Binding for Multi-Legged Walking Robots [#21778]

Rudolf Szadkowski and Jan Faigl
Czech Technical University in Prague, Czech Republic

4:10PM Multi-Agent Pattern Formation: a Distributed Model-Free Deep Reinforcement Learning Approach [#20184]

Elhadji Amadou Oury Diallo and Toshiharu Sugawara
Waseda University, Japan

4:30PM Deep Reinforcement Learning Control of Hand-Eye Coordination with a Software Retina [#21690]

Boyd Lewis, Popovic Vanja and Siebert Paul
University of Strathclyde, United Kingdom; University of Glasgow, United Kingdom

- 4:50PM Evolution of a Complex Predator-Prey Ecosystem on Large-scale Multi-Agent Deep Reinforcement Learning [#20736]**
Jun Yamada, John Shawe-Taylor and Zafeirios Fountas
University College London, Emotech Labs, United Kingdom; University College London, United Kingdom
- 5:10PM Balance Control of a Bipedal Robot Utilizing Intuitive Pattern Generators with Extended Normalized Advantage Functions [#21653]**
Christos Kouppas, Mohamad Saada, Qinggang Meng, Mark King and Dennis Majoe
Loughborough University, United Kingdom; Motion Robotics LTD, United Kingdom

Plenary Poster Session I-P13: Deep neural networks

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Poster Room 1, Chair: Richard Duro

- P2501 Retraining Quantized Neural Network Models with Unlabeled Data [#20958]**
Kundjanasith Thonglek, Keichi Takahashi, Kohei Ichikawa, Chawanat Nakasan, Hidemoto Nakada, Ryousei Takano and Hajimu Iida
Nara Institute of Science and Technology, Japan; Kanazawa University, Japan; National Institute of Advanced Industrial Science and Technology, Japan
- P2502 Approximate Manifold Defense Against Multiple Adversarial Perturbations [#20739]**
Jay Nandy, Wynne Hsu and Mong Li Lee
National University of Singapore, Singapore
- P2503 Controllable Question Generation via Sequence-to-Sequence Neural Model with Auxiliary Information [#20666]**
Zhen Cao, Sivanagaraja Tatinati and Andy W. H. Khong
Nanyang Technological University, Singapore
- P2504 Improving Abstractive Text Summarization with History Aggregation [#20126]**
Liao Pengcheng, Zhang Chuang, Chen Xiaojun and Zhou Xiaofei
School of Cyber Security University of Chinese Academy of Sciences, China; Institute of Information Engineering Chinese Academy of Sciences, China
- P2505 Vehicle Re-Identification by Deep Feature Embedding and Approximate Nearest Neighbors [#21673]**
Artur O. R. Franco, Felipe F. Soares, Fernando A. de C. Gomes, Jose A. F. Macedo, Aloisio V. Lira Neto, Paulo A. L. Rego and Jose G. R. Maia
Federal University of Ceara, Brazil; Brazilian Federal Highway Police, Brazil
- P2506 A Dynamic-Attention on Crowd Region with Physical Optical Flow Features for Crowd Counting [#20328]**
Qian Wang, Wenxi Li, Songjian Chen and Rui Feng
Fudan University, China
- P2507 Enhancing Pre-trained Language Representation for Multi-Task Learning of Scientific Summarization [#20774]**
Ruipeng Jia, Yanan Cao, Fang Fang, Jinpeng Li, Yanbing Liu and Pengfei Yin
Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences, China
- P2508 Performance analysis of neural network topologies and hyperparameters for deep clustering [#21386]**
Muhammed Kucuk and Ismail Uysal
University of South Florida, United States

- P2509 Implicit Discriminator in Variational Autoencoder [#20105]**
Prateek Munjal, Akanksha Paul and Narayanan Chatapuram Krishnan
Indian Institute of Technology Ropar, India
- P2510 Semantic Hierarchy-based Convolutional Neural Networks for Image Classification [#21661]**
Matheus Inoue, Carlos Henrique Forster and Antonio Carlos dos Santos
University of Sao Paulo, Brazil; Aeronautics Institute of Technology, Brazil; Itau-Unibanco, Brazil
- P2511 U-Net with Dense Encoder, Residual Decoder and Depth-wise Skip Connections [#21881]**
Weiqin Ying, Junhui Li, Yu Wu, Kaijie Zheng, Yali Deng and Jiachen Li
South China University of Technology, China; Guangzhou University, China
- P2512 Generating Multi-label Adversarial Examples by Linear Programming [#21804]**
Nan Zhou, Wenjian Luo, Xin Lin, Peilan Xu and Zhenya Zhang
School of Computer Science and Technology, University of Science and Technology of China, China; School of Computer Science and Technology, Harbin Institute of Technology, China; Anhui Province Key Laboratory of Intelligent Building and Building Energy Saving, Anhui Jianzhu University, China
- P2513 Layer-wise Adversarial Training Approach to Improve Adversarial Robustness [#21822]**
Xiaoyi Chen and Ni Zhang
NEC Labs, China, China
- P2514 OvA-INN: Continual Learning with Invertible Neural Networks [#20231]**
Guillaume Hocquet, Olivier Bichler and Damien Querlioz
University of Paris-Saclay, France; CEA, France
- P2515 En-VStegNET: Video Steganography using spatio-temporal feature enhancement with 3D-CNN and Hourglass [#21848]**
Aman Jaiswal, Suraj Kumar and Aditya Nigam
IIT Dharwad, India; GLA University Mathura, India; IIT Mandi, India
- P2516 Efficient 3D Semantic Segmentation of Seismic Images using Orthogonal Planes 2D Convolutional Neural Networks [#20585]**
Arthur Bridi Guazzelli, Mauro Roisenberg and Bruno Barbosa Rodrigues
Federal University of Santa Catarina, Brazil; Petrobras S.A., Brazil
- P2517 Distilling Essence of a Question: A Hierarchical Architecture for Question Quality in Community Question Answering Sites [#20415]**
Mun Kit Ho, Sivanagaraja Tatinati and Andy W. H. Khong
Nanyang Technological University, Singapore

Plenary Poster Session I-P14:

Wednesday, July 22, 3:30PM-5:30PM, Room: IJCNN Poster Room 2, Chair: Antonello Rizzi

- P2701 Interpretable Time-series Classification on Few-shot Samples [#20413]**
Wensi Tang, Lu Liu and Guodong Long
University of Technology Sydney, Australia
- P2702 Multivariate Time Series Prediction with PID-based Residual Compensation [#21119]**
Jinxin Liu, Qiangxing Tian and Donglin Wang
Westlake University, China

- P2703 SASRM: A Semantic and Attention Spatio-temporal Recurrent Model for Next Location Prediction [#20311]**
 Xu Zhang, Boming Li, Chao Song, Zhengwen Huang and Yan Li
 Chongqing University of Posts and Telecommunications, China; China Academy of Electronics and Information Technology, China; Brunel University London, United Kingdom; Inha University, Korea (South)
- P2704 Combining an LSTM neural network with the Variance Ratio Test for time series prediction and operation on the Brazilian stock market [#21355]**
 Caio Mario Mesquita, Renato Oliveira and Adriano Pereira
 Universidade Federal de Minas Gerais, Brazil
- P2705 A Dual Network Solution (DNS) for Lag-Free Time Series Forecasting [#20470]**
 Subhrajit Samanta, Mahardhika Pratama, Suresh Sundaram and Narasimalu Srikanth
 Nanyang Technological University, Singapore; IISC, Bengaluru, India
- P2706 Dynamic Bus Arrival Time Prediction: A Temporal Difference Learning Approach [#21654]**
 Vignesh L K P, Avinash Achar and Gokul Karthik
 Tata Consultancy Services, India
- P2707 Untargeted, Targeted and Universal Adversarial Attacks and Defenses on Time Series [#20727]**
 Pradeep Rathore, Arghya Basak, Sri Harsha Nistala and Venkataramana Runkana
 TCS Research, India
- P2708 A novel dynamically adjusted regressor chain for taxi demand prediction [#20863]**
 Zipeng Wu and Guan Lian
 Guilin University of Electronic Technology, China
- P2709 Multi-step ahead Bitcoin Price Forecasting Based on VMD and Ensemble Learning Methods [#20347]**
 Ramon Gomes da Silva, Matheus Henrique Dal Molin Ribeiro, Naylene Fraccanabbia, Viviana Cocco Mariani and Leandro dos Santos Coelho
 Pontifical Catholic University of Parana, Brazil; Federal Technological University of Parana; Pontifical Catholic University of Parana, Brazil; Pontifical Catholic University of Parana; Federal University of Parana, Brazil
- P2710 Electricity energy price forecasting based on hybrid multi-stage heterogeneous ensemble: Brazilian commercial and residential cases [#20864]**
 Matheus Henrique Dal Molin Ribeiro, Ramon Gomes da Silva, Cristiane Canton, Naylene Fraccanabbia, Viviana Cocco Mariani and Leandro dos Santos Coelho
 Federal Technological University of Parana; Pontifical Catholic University of Parana, Brazil; Pontifical Catholic University of Parana, Brazil; Pato Branco University Center, Brazil
- P2711 DLEP: A Deep Learning Model for Earthquake Prediction [#20984]**
 Rui Li, Xiaobo Lu, Shuowei Li, Haipeng Yang, Jianfeng Qiu and Lei Zhang
 Anhui University, China
- P2712 SDCN: Sparsity and Diversity Driven Correlation Networks for Traffic Demand Forecasting [#21076]**
 Wenjie Li, Xue Yang, Xiaohu Tang and Shutao Xia
 Southwest Jiaotong University, China; Tsinghua University, China
- P2713 Time series ordinal classification via shapelets [#21255]**
 David Guijo-Rubio, Pedro A. Gutierrez, Anthony Bagnall and Cesar Hervas-Martinez
 University of Cordoba, Spain; University of East Anglia, United Kingdom

P2714 Hybrid Prediction Model for Mobile Data Traffic: A Cluster-level Approach [#21208]
Bethehem S. Shawel, Tsegamlak T. Debella, Getinet Tesfaye, Yonas Y. Tefera and Dereje H. Woldegebreal

SECE, AAIT, Addis Ababa University, Ethiopia

P2715 Achieving Explainability of Intrusion Detection System by Hybrid Oracle-Explainer Approach [#20850]

Mateusz Szczepanski, Michal Choras, Marek Pawlicki and Rafal Kozik

ITTI Sp. z o.o. Poznan and UTP Bydgoszcz, Poland

Session I-R22: Deep neural networks

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 1, Chair: Thiago Rios, Bas van Stein

5:45PM BIBNet: An Efficient Super Resolution with Bottleneck-In-Bottleneck [#21134]

Simyung Chang, Keuntek Lee, Shobhit Jain and Cheul-hee Hahm

Samsung Electronics, Korea (South)

6:05PM FaDec: A Fast Decision-based Attack for Adversarial Machine Learning [#21389]

Faiq Khalid, Hassan Ali, Muhammad Abdullah Hanif, Semeen Rehman, Rehan Ahmed and Muhammad Shafique

TU Wien, Austria; National University of Sciences and Technology (NUST), Pakistan

6:25PM A Deep Transfer Learning Approach for Fake News Detection [#21846]

Tanik Saikh, Haripriya Bindu, Asif Ekbal and Pushpak Bhattacharyya

Indian Institute of Technology Patna, India; Indian Institute of Information Technology Senapati, India

6:45PM Machine Vision for Construction Equipment by Transfer Learning with Scale-Models [#21108]

Carl Borngund, Ulf Bodin and Fredrik Sandin

Embedded Intelligent Systems Lab (EISLAB), Lulea University of Technology, Sweden

7:05PM Learning to Search Efficient DenseNet with Layer-wise Pruning [#21063]

Xuanyang Zhang, Hao Liu, Zhanxing Zhu and Zenglin Xu

University of Electronic Science and Technology of China, China; University of California, Berkeley, United States; Peking university, China; Harbin Institute of Technology, Shenzhen, China

7:25PM Feature Visualization for 3D Point Cloud Autoencoders [#21518]

Thiago Rios, Bas van Stein, Stefan Menzel, Thomas Baeck, Bernhard Sendhoff and Patricia Wollstadt

Honda Research Institute Europe, Germany; Leiden Institute of Advanced Computer Science, Netherlands

Special Session I-SS9A: Deep Neural Audio Processing

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 2, Chair: Emanuele Principi

5:45PM Loss Functions for Deep Monaural Speech Enhancement [#21276]

Jan Freiwald, Lea Schoenherr, Christopher Schymura, Steffen Zeiler and Dorothea Kolossa

Ruhr University Bochum, Germany

6:05PM Reinforcement Learning based Neural Architecture Search for Audio Tagging [#20711]

Haiyang Liu and Cheng Zhang

Waseda University, Graduate School of Information, Production and Systems, Japan; Southeast University, School of Instrument Science and Engineering, China

6:25PM Sound Event Detection with Depthwise Separable and Dilated Convolutions [#21130]
Konstantinos Drossos, Stylianos Ioannis Mimilakis, Shayan Gharib, Yanxiong Li and Tuomas Virtanen

Audio Research Group, Tampere University, Finland; Semantic Music Technologies Group, Fraunhofer-IDMT, Germany; School of Electronic and Information Engineering, South China University of Technology, China

6:45PM Who Cried When: Infant Cry Diarization with Dilated Fully-Convolutional Neural Networks [#21284]

Marco Severini, Emanuele Principi, Samuele Cornell, Leonardo Gabrielli and Stefano Squartini
Universita' Politecnica delle Marche, Italy

7:05PM Using a Neural Network Codec Approximation Loss to Improve Source Separation Performance in Limited Capacity Networks [#21406]

Ishwarya Ananthabhotla, Sebastian Ewert and Joseph Paradiso
MIT Media Lab, United States; Spotify, Germany

7:25PM A Novel Adversarial Training Scheme for Deep Neural Network based Speech Enhancement [#21201]

Samuele Cornell, Emanuele Principi and Stefano Squartini
Universita Politecnica delle Marche, Italy

Special Session I-SS45: Neural Architecture Search and its Applications

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 3, Chair: Min Jiang

5:45PM Neural Architecture Search for Time Series Classification [#20587]

Hojjat Rakhshani, Hassan Ismail Fawaz, Lhassane Idoumghar, Germain Forestier, Julien Lepagnot, Jonathan Weber, Mathieu Brevilliers and Pierre-Alain Muller
Universite de Haute-Alsace, IRIMAS UR 7499, F-68100 Mulhouse, France

6:05PM Geometry Sampling for 3D Face Generation via DCGAN [#20440]

Guoliang Luo, Xin Zhao, Yang Tong, Qiang Chen, Zhiliang Zhu, Haopeng Lei and Juncong Lin
East China Jiaotong University and Jiangxi Booway New Technology Co. Ltd, China; East China Jiaotong University, China; Jiangxi Normal University, China; Xiamen University, China

6:25PM Evolving Deep Convolutional Neural Networks for Hyperspectral Image Denoising [#20540]

Yuqiao Liu, Yanan Sun, Bing Xue and Mengjie Zhang
Sichuan University, China; Victoria University of Wellington, New Zealand

6:45PM FPA-DNN: A Forward Propagation Acceleration based Deep Neural Network for Ship Detection [#21181]

Feng Wang, Fanshu Liao and Huiqing Zhu
School of Computer Science, Wuhan University, China

7:05PM Bas-reliefs Modelling Based on Learning Deformable 3D Models [#21257]

Siyuan Zhu, Cheng Shang, Jingjing Fan, Xin Wang and Meili Wang
Northwest A & F University, China

7:25PM A Novel Self-Organizing Emotional CMAC Network for Robotic Control [#21780]

Juncheng Zhang, Quanfeng Li, Xiang Chang, Chih-Min Lin, Longzhi Yang, Tuan Tu Huynh, Fei Chao, Ling Zheng, Changle Zhou and Changjing Shang
Xiamen University, China; Aberystwyth University, United Kingdom; Yuan Ze University, Taiwan; Northumbria University, United Kingdom

Special Session I-SS19: Concept Drift, Domain Adaptation & Learning in Dynamic Environments
Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 4, Chair: Giacomo Boracchi

- 5:45PM Discriminative Joint Probability Maximum Mean Discrepancy (DJP-MMD) for Domain Adaptation [#20299]**
Wen Zhang and Dongrui Wu
Huazhong University of Science & Technology, China
- 6:05PM Randomizing the Self-Adjusting Memory for Enhanced Handling of Concept Drift [#20145]**
Viktor Losing, Barbara Hammer, Heiko Wersing and Albert Bifet
Honda Research Institute Europe, Germany; Bielefeld University, Germany; Telecom ParisTech, France
- 6:25PM Forget Me Not: Reducing Catastrophic Forgetting for Domain Adaptation in Reading Comprehension [#20713]**
Ying Xu, Xu Zhong, Antonio Jose Jimeno Yepes and Jey Han Lau
IBM Research Australia, Australia; University of Melbourne, Australia
- 6:45PM Data-efficient Online Classification with Siamese Networks and Active Learning [#21139]**
Kleanthis Malialis, Christos G. Panayiotou and Marios M. Polycarpou
University of Cyprus, Cyprus
- 7:05PM Continual Learning with Gated Incremental Memories for Sequential Data Processing [#20842]**
Andrea Cossu, Antonio Carta and Davide Bacciu
University of Pisa, Italy
- 7:25PM A Hybrid 3DVar-EnKF Data Assimilation Approach Based on Multilayer Perceptron [#20058]**
Lilan Huang, Hongze Leng, Junqiang Song, Juan Zhao, Rui Chen and Dongzi Wang
College of Meteorology and Oceanography, College of Computer, National University of Defense Technology, China; College of Meteorology and Oceanography, National University of Defense Technology, China; College of Computer, National University of Defense Technology, China

Special Session I-SC10: Sensors, Robotics and Artificial Intelligence: From Theory to Applications
Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 5, Chair: Dhiya Al-Jumeily

- 5:45PM Classifying Imbalanced Multi-modal Sensor Data for Human Activity Recognition in a Smart Home using Deep Learning [#20929]**
Ali A. Alani, Georgina Cosma and Aboozar Taherkhani
University of Diyala, Iraq; Loughborough University, United Kingdom; De Montfort University, United Kingdom
- 6:05PM Students Performance Prediction in Online Courses Using Machine Learning Algorithms [#21071]**
Raghad Alshabandar, Abir Hussain, Robert Keight and Wasiq Khan
LJMU, Great Britain; LMU, Great Britain; ;JMU, Great Britain
- 6:25PM Novel Approach to Predict Ground-Level Ozone Concentration Using S-estimation and MM-Estimation [#21382]**
Ahmad zia ul-saufie Mohamad Japeri, Dhiya Al-Jumeily, Abir Hussain, Muhamad Muqhlisah, Jamila Mustafina, Fawaz Ghali and Thar Baker
Universiti Teknologi Mara, Malaysia; Liverpool John Moores University, United Kingdom; Kazan Federal University, Russian Federation

6:45PM Virtual Experiments on ArUco and AprilTag Systems Comparison for Fiducial Marker Rotation Resistance under Noisy Sensory Data [#21405]

Aufar Zakiev, Tatyana Tsoy, Ksenia Shabalina, Evgeni Magid and Subir Kumar Saha
Kazan Federal University, Russia; Indian Institute of Technology Delhi, India

7:05PM Unsupervised Features Extracted using Winner-Take-All Mechanism Lead to Robust Image Classification [#21795]

Devdhar Patel and Robert Kozma
University of Massachusetts Amherst, United States; University of Massachusetts Amherst & University of Memphis, United States

7:25PM A Deep Model for Joint Object Detection and Semantic Segmentation in Traffic Scenes [#20619]

Jizhi Peng, Zhixiong Nan, Linhai Xu, Jingmin Xin and Nanning Zheng
Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University, China

Session I-R23: Reinforcement learning and adaptive dynamic programming 2

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 6, Chair: Haibo He, Murad Abu-Khalaf

5:45PM Adaptive Mechanism Design: Learning to Promote Cooperation [#20780]

Tobias Baumann, Thore Graepel and John Shawe-Taylor
University College London, United Kingdom; DeepMind, United Kingdom

6:05PM Latent Context Based Soft Actor-Critic [#20277]

Yuan Pu, Shaochen Wang, Xin Yao and Bin Li
University of Science and Technology of China, China

6:25PM Event-triggered Multi-agent Optimal Regulation Using Adaptive Dynamic Programming [#21544]

Xiangnan Zhong and Haibo He
Florida Atlantic University, United States; University of Rhode Island, United States

6:45PM Discrete-Time Lyapunov based Kinematic Control of Robot Manipulator using Actor-Critic Framework [#21860]

Ankur Kamboj, Ravi Prakash, Jayant Kumar Mohanta and Laxmidhar Behera
Indian Institute of Technology, Kanpur, India

7:05PM MARLeME: A Multi-Agent Reinforcement Learning Model Extraction Library [#21494]

Dmitry Kazhdan, Zohreh Shams and Pietro Lio
The University of Cambridge, United Kingdom

7:25PM Improved Policy Extraction via Online Q-Value Distillation [#20970]

Aman Jhunjhunwala, Jaeyoung Lee, Sean Sedwards, Vahdat Abdelzad and Krzysztof Czarnecki
University of Waterloo, Canada

Session I-R24: Applications of deep networks

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Room 7, Chair: Ishai Rosenberg

5:45PM Enhancing Question Answering over Knowledge Base Using Dynamical Relation Reasoning [#20066]

Liao Cheng, Ziheng Chen and Jiangtao Ren
Sun Yat-sen University, China

- 6:05PM A Dual Transformer Model for Intelligent Decision Support for Maintenance of Wind Turbines [#21213]**
Joyjit Chatterjee and Nina Dethlefs
University of Hull, United Kingdom
- 6:25PM Generating End-to-End Adversarial Examples for Malware Classifiers Using Explainability [#20905]**
Ishai Rosenberg, Shai Meir, Jonathan Berrebi, Ilay Gordon, Guillaume Sicard and Eli David
Deep Instinct Ltd, Israel
- 6:45PM TransKP: Transformer based Key-Phrase Extraction [#21249]**
Mukund Rungta, Rishabh Kumar, Mehak Dhaliwal, Hemant Tiwari and Vanraj Vala
Samsung R&D Institute, Bangalore, India
- 7:05PM CDNet++: Improved Change Detection with Deep Neural Network Feature Correlation [#21369]**
Ram Prabhakar Kathirvel, Akshaya Ramaswamy, Suvaansh Bhambri, Jayavardhana Gubbi, Venkatesh Babu Radhakrishnan and Balamuralidhar Purushothaman
Indian Institute of Science, India; TCS, India; Indian Institute of Science, India
- 7:25PM Automatic Lyrics Transcription using Dilated Convolutional Neural Networks with Self-Attention [#21551]**
Emir Demirel, Ahlback Sven and Dixon Simon
Queen Mary University of London, United Kingdom; Doremir Music Research AB, Sweden

Plenary Poster Session I-P15: Supervised Learning

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Poster Room 1, Chair: Eyad Elyan

- P2901 Proximal Stochastic AUC Maximization [#20146]**
Majdi Khalid, Hamidreza Chitsaz and Indrakshi Ray
Umm-Alqura University, Saudi Arabia; Colorado State University, United States
- P2902 Sky / Ground Segmentation Using Different Approaches [#20281]**
Arlete Teresinha Beuren, Alceu de Souza Britto Jr and Jacques Facon
Federal University of Technology, Brazil; Catholic University, Brazil; Federal University, Brazil
- P2903 Multi-Label Learning with Local Similarity of Samples [#20787]**
Wenfang Zhu, Weiwei Li and Xiuyi Jia
Nanjing University of Science and Technology, China; Nanjing University of Aeronautics and Astronautics, China
- P2904 Dominant Channel Fusion Architectures - An Intelligent Late Fusion Approach [#20858]**
Peter Bellmann, Patrick Thiam and Friedhelm Schwenker
Ulm University, Germany
- P2905 Deep High-order Asymmetric Supervised Hashing for Image Retrieval [#21068]**
Yongchao Yang, Jianxin Zhang, Qian Wang and Bin Liu
Dalian University, China; Dalian Minzu University, China; Dalian University of Technology, China
- P2906 Deep Learning and Genome-Wide Association Studies for the Classification of Type 2 Diabetes [#21126]**
Basma Abdulaimma, Paul Fergus, Carl Chalmers and Casimiro Curbelo Montanez
Liverpool John Moores University, United Kingdom

- P2907 Facing Big Data by an Agent-Based Multimodal Evolutionary Approach to Classification [#21600]**
Mauro Giampieri, Luca Baldini, Enrico De Santis and Antonello Rizzi
University of Rome "La Sapienza", Department of Information Engineering, Electronics and Telecommunications, Italy
- P2908 Generalized Local Aggregation for Large Scale Gaussian Process Regression [#21066]**
Yinghua Gao, Naiqi Li, Ning Ding, Yiming Li, Tao Dai and Shu-Tao Xia
Tsinghua University, China
- P2909 Mitigating Outlier Effect in Online Regression: An Efficient Usage of Error Correntropy Criterion [#21582]**
Sajjad Bahrami and Ertem Tuncel
University of California, Riverside, United States
- P2910 Dual Semantic Relationship Attention Network for Image-Text Matching [#20247]**
Keyu Wen and Xiaodong Gu
Fudan University, China
- P2911 A BERT-based Approach with Relation-aware Attention for Knowledge Base Question Answering [#20626]**
Da Luo, Jindian Su and Shanshan Yu
South China University of Technology, China; Guangdong Pharmaceutical University, China
- P2912 Shallow Vessel Segmentation Network for Automatic Retinal Vessel Segmentation [#21885]**
Tariq Khan, Faizan Abdullah, Syed Naqvi, Muhammad Arsalan and Muhammad Khan
COMSATS University Islamabad, Pakistan; Dongguk University, Korea (South); Lancaster University, United Kingdom
- P2913 About Approximation Completeness of Generalized Multilayer Perceptrons Consisting of Banach-like Perceptrons Based on Semi-Inner Products [#20799]**
Thomas Villmann, Alexander Engelsberger, Jensun Ravichandran and Andrea Villmann
University of Applied Sciences Mittweida, Germany; Berufliches Schulzentrum Doebeln-Mittweida, Germany
- P2914 High-Level Classification for Multi-Label Learning [#21730]**
Vinicius Henrique Resende and Murillo Guimaraes Carneiro
Federal University of Uberlandia, Brazil
- P2915 Minority Oversampling Using Sensitivity [#21880]**
Jianjun Zhang, Ting Wang, Wing W. Y. Ng, Witold Pedrycz, Shuai Zhang and Chris D. Nugent
School of Computer Science and Engineering, South China University of Technology, China; Department of Electrical and Computer Engineering, University of Alberta, Canada; School of Computing, Ulster University, United Kingdom
- P2916 Sensor Data for Human Activity Recognition: Feature Representation and Benchmarking [#21777]**
Flavia Alves, Martin Gairing, Frans A. Oliehoek and Thanh-Toan Do
University of Liverpool, United Kingdom; Delft University of Technology, Netherlands
- P2917 Data augmentation process to improve deep learning-based NER task in the automotive industry field [#20873]**
Abdenacer Keraghel, Khalid Benabdeslem and Bruno Canitia
LIZEO IT, France; LIRIS, France; Lizeo IT, France

Plenary Poster Session I-P16:

Wednesday, July 22, 5:45PM-7:45PM, Room: IJCNN Poster Room 2, Chair: Mohammad Reza Rajati

- P3101 Graph Neural Networks Boosted Personalized Tag Recommendation Algorithm [#20629]**
Xuwen Chen, Yonghong Yu, Fengyixin Jiang, Li Zhang, Rong Gao and Haiyan Gao
Nanjing University of Posts and Telecommunications, China; Northumbria University, United Kingdom; Hubei University of Technology, China
- P3102 A Rating Bias Formulation based on Fuzzy Set for Recommendation [#21918]**
Mingming Li, Fuqing Zhu, Jiao Dai, Liangjun Zang, Yipeng Su, Jizhang Han and Songlin Hu
Institute of Information Engineering, Chinese Academy of Sciences, China
- P3103 A Semantic Subgraphs Based Link Prediction Method for Heterogeneous Social Networks with Graph Attention Networks [#20220]**
Zhu Kai and Cao Meng
Department of Computer Science and Technology Nanjing University, Nanjing, China, China
- P3104 Discovery of contrast corridors from trajectory data in heterogeneous dynamic cellular networks [#21738]**
Li Li, Sarah Erfani, Chien Chan and Christopher Leckie
The University of Melbourne, Australia
- P3105 Knowledge Graph Generation with Deep Active Learning [#21200]**
Abhishek Pradhan, Ketan Kumar Todi, Anbarasan Selvarasu and Atish Sanyal
Taiger Singapore Pte. Ltd, Singapore
- P3106 VAE-BRIDGE: Variational Autoencoder Filter for Bayesian Ridge Imputation of Missing Data [#21586]**
Ricardo Cardoso Pereira, Pedro Henriques Abreu and Pedro Pereira Rodrigues
University of Coimbra, Portugal; University of Porto, Portugal
- P3107 An Ecology-based Index for Text Embedding and Classification [#20671]**
Alessio Martino, Enrico De Santis and Antonello Rizzi
University of Rome "La Sapienza, Department of Information Engineering, Electronics and Telecommunications, Italy
- P3108 Deep Transfer Collaborative Filtering with Geometric Structure Preservation for Cross-Domain Recommendation [#21225]**
Yachen Kang, Sibao Gai, Feng Zhao, Donglin Wang and Ao Tang
Westlake University, China; WeCar(Shenzhen) Technology Co., Ltd. Shenzhen, China
- P3109 Adaptive Transfer Learning for Heterogeneous One-Class Collaborative Filtering [#20050]**
Xiancong Chen, Weike Pan and Zhong Ming
Shenzhen University, China
- P3110 PAT: Preference-Aware Transfer Learning for Recommendation with Heterogeneous Feedback [#20137]**
Feng Liang, Wei Dai, Yunfeng Huang, Weike Pan and Zhong Ming
Shenzhen University, China
- P3111 TimeSAN: A Time-Modulated Self-Attentive Network for Next Point-of-Interest Recommendation [#20743]**
Jiayuan He, Jianzhong Qi and Kotagiri Ramamohanarao
The University of Melbourne, Australia
- P3112 Seismic Event Detection via Deep Multi-Task Learning [#21150]**
Yang Yu, Lei Zhang, Jiakai Shen, Qingcai Wang and Guiquan Liu
University of Science and Technology of China, China; Anhui University, China; Nanjing University, China

- P3113 Adaptive Weighted Broad Learning System for software defect prediction [#20189]**
Kankan Lan, Kaixiang Yang, Zhiwen Yu, Guoqiang Han, Jane You and C. L. Philip Chen
School of Computer Science & Engineering, South China University of Technology, China;
Department of Computing, The Hong Kong Polytechnic University, China
- P3114 An Outlier Detection Algorithm based on KNN-kernel Density Estimation [#21179]**
Abdul Wahid and Annavarapu Chandra Sekhara Rao
Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand, India
- P3115 Joint Medical Ontology Representation Learning for Healthcare Predictions [#20389]**
Ke Wang, Ning Chen and Ting Chen
Tsinghua University, China
- P3116 DVKCM: Knowledge-guided Conversation Generation with Dynamic Vocabulary [#20564]**
Xu Wang, Shuai Zhao, Bo Cheng, Jiale Han, Xiangsheng Wei, Yi Liang and Hao Yang
Beijing University of Posts and Telecommunications, China; 2012 Labs, Huawei Technologies
CO., LTD, Beijing, China, China
- P3117 Automatic Tag Recommendation for Painting Artworks Using Diachronic Descriptions [#20687]**
Gianluca Zuin, Adriano Veloso, Joao Candido Portinari and Nivio Ziviani
UFMG, Brazil; Projeto Portinari, Brazil
- P3118 Deep Embedding for Relation Extraction on Insufficient Labelled Data [#20923]**
Haojie Huang and Raymond Wong
University of New South Wales, Australia
- P3119 TULSN: Siamese Network for Trajectory-user Linking [#21886]**
Yong Yu, Haina Tang, Fei Wang, Lin Wu, Tangwen Qian, Tao Sun and Yongjun Xu
University of Chinese Academy of Sciences, China; Institute of Computing Technology, Chinese
Academy of Sciences, China
- P3120 P-DNN: An Effective Intrusion Detection Method based on Pruning Deep Neural Network [#20006]**
Mingjian Lei, Xiaoyong Li, Binsi Cai, Yunfeng Li, Limengwei Liu and Wenping Kong
Beijing University of Posts and Telecommunications, China
- P3121 Using Word2Vec Recommendation for Improved Purchase Prediction [#21584]**
Ramazan Esmeli, Mohamed Bader-El-Den and Hassana Abdullahi
University of Portsmouth, United Kingdom
- P3122 Improving Session-Based Recommendation Adopting Linear Regression-Based Re-ranking [#21597]**
Ramazan Esmeli, Mohamed Bader-El-Den, Hassana Abdullahi and David Henderson
University of Portsmouth, United Kingdom

Session I-R25: Deep neural networks

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 1, Chair: Byron Leite

- 8:00PM WW-Nets: Dual Neural Networks for Object Detection [#21503]**
Mohammad Ebrahimpour, Ben Falandays, Samuel Spevack, Yang Ming-Hsuan and Noelle
David
University of California, Merced, United States
- 8:20PM A Light-weight Deep Feature based Capsule Network [#21376]**
Chandan Kumar Singh, Vivek Kumar Gangwar, Anima Majumder, Swagat Kumar, Prakash
Chanderlal Ambwani and Rajesh Sinha
Tata Consultancy Services, India

- 8:40PM RelationNet2: Deep Comparison Network for Few-Shot Learning [#21563]**
 Xueting Zhang, Yuting Qiang, Flood Sung, Yongxin Yang and Timothy Hospedales
 University of Edinburgh, United Kingdom; University of Nanjing, China; Inspir.ai, China
- 9:00PM Airplane Detection in Optical Remote Sensing Video Using Spatial and Temporal Features [#20557]**
 Bai Jing, Yu Wentao, Yuan Anran and Xiao Zhu
 Xidian University, China; Hunan University, China
- 9:20PM Recurrent Point Review Models [#20346]**
 Kostadin Cvejovski, Ramses J. Sanchez, Bogdan Georgiev, Christian Bauckhage and Cesar Ojeda
 Competence Center Machine Learning Rhine-Ruhr and Fraunhofer IAIS, 53757 Sankt Augustin, Germany, Germany; -IT, University of Bonn, Bonn, Germany, Germany; Fraunhofer Center for Machine Learning and Fraunhofer IAIS, 53757 Sankt Augustin, Germany, Germany; Berlin Center for Machine Learning and TU Berlin, 10587 Berlin, Germany, Germany
- 9:40PM A Fast Fully Octave Convolutional Neural Network for Document Image Segmentation [#20906]**
 Ricardo Batista Neves Junior, Luiz Felipe Vercosa, David Macedo, Byron Leite Dantas Bezerra and Cleber Zanchettin
 Universidade de Pernambuco, Brazil; Universidade Federal de Pernambuco, Brazil

Special Session I-SS9B: Deep Neural Audio Processing

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 2, Chair: Emanuele Principi

- 8:00PM AM-MobileNet1D: A Portable Model for Speaker Recognition [#21237]**
 Joao Antonio Chagas Nunes, David Macedo and Cleber Zanchettin
 Universidade Federal de Pernambuco, Brazil
- 8:20PM Robust Training of Vector Quantized Bottleneck Models [#21668]**
 Adrian Lancucki, Jan Chorowski, Guillaume Sanchez, Ricard Marxer, Nanxin Chen, Hans Dolfing, Sameer Khurana, Tanel Alumae and Antoine Laurent
 NVIDIA Corporation, Poland; University of Wroclaw, Poland; Universite de Toulon, LIS, France; Johns Hopkins University, United States; Independent researcher, United States; Massachusetts Institute of Technology, United States; Tallinn University of Technology, Estonia; Le Mans University, France
- 8:40PM Two-Microphone End-to-End Speaker Joint Identification and Localization Via Convolutional Neural Networks [#21294]**
 Daniele Salvati, Carlo Drioli and Gian Luca Foresti
 University of Udine, Italy
- 9:00PM A Comparative Study of Time and Frequency Domain Approaches to Deep Learning based Speech Enhancement [#21378]**
 Soha A. Nossier, Julie Wall, Mansour Moniri, Cornelius Glackin and Nigel Cannings
 University of East London, United Kingdom; Intelligent Voice Ltd, United Kingdom
- 9:20PM Mapping and Masking Targets Comparison using Different Deep Learning based Speech Enhancement Architectures [#21397]**
 Soha A. Nossier, Julie Wall, Mansour Moniri, Cornelius Glackin and Nigel Cannings
 University of East London, United Kingdom; Intelligent Voice Ltd, United Kingdom

9:40PM Hierarchical Component Attention Based Speaker Turn Embedding for Emotion Recognition [#21976]

Shuo Liu, Jinlong Jiao, Ziping Zhao, Judith Dineley, Nicholas Cummins and Bjoern Schuller
Chair of Embedded Intelligence for Health Care and Wellbeing, University of Augsburg, Germany; College of Computer and Information Engineering, Tianjin Normal University, China; GLAM - Group on Language, Audio & Music Imperial College London, Germany

Special Session I-SS41: Neural Architecture Search and Deep Reinforcement Learning for Autonomous Driving

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 3, Chair: Yaran Chen

8:00PM Multi-Robot Cooperative Target Encirclement through Learning Distributed Transferable Policy [#20361]

Tianle Zhang, Zhen Liu, Shiguang Wu, Zhiqiang Pu and Jianqiang Yi
Institute of Automation, Chinese Academy of Sciences, China

8:20PM IEDQN: Information Exchange DQN with a Centralized Coordinator for Traffic Signal Control [#20767]

Donghan Xie, Zhi Wang, Chunlin Chen and Daoyi Dong
Nanjing University, China; University of New South Wales, Australia

8:40PM An Improved Minimax-Q Algorithm Based on Generalized Policy Iteration to Solve a Chaser-Invader Game [#20793]

Minsong Liu, Yuanheng Zhu and Dongbin Zhao
Chinese Academy of Sciences, China

9:00PM Multi-Agent Deep Reinforcement Learning with Counterfactual Reward for Cooperative Games [#21081]

Kun Shao, Yuanheng Zhu, Zhentao Tang and Dongbin Zhao
Chinese Academy of Sciences, Institute of Automation, China

9:20PM RailNet: An Information Aggregation Network for Rail Track Segmentation [#20643]

Haoran Li, Qichao Zhang, Dongbin Zhao and Yaran Chen
Institute of Automation, Chinese Academy of Sciences, China

9:40PM Shift-Invariant Convolutional Network Search [#20803]

Nannan Li, Yaran Chen, Zixiang Ding and Dongbin Zhao
State Key Laboratory of Management and Control for Complex Systems, Institute of Automation, Chinese Academy of Sciences. School of artificial intelligence, University of Chinese Academy of Sciences., China

Special Session I-SS20: Artificial Intelligence and SEcurity (AISE)

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 4, Chair: Marta Cimitile

8:00PM How to keep an online learning chatbot from being corrupted [#20792]

Yixuan Chai, Guohua Liu, Donghong Sun and Ziwei Jin
Donghua University, China; Tsinghua University, China; Ohio State University, United States

8:20PM IoT Attack Detection with Deep Learning Analysis [#21080]

Riccardo Pecori, Amin Tayebi, Armando Vannucci and Luca Veltri
University of Sannio, Italy; University of Parma, Italy

8:40PM A Privacy-Preserving Distributed Architecture for Deep-Learning-as-a-Service [#20912]

Simone Disabato, Alessandro Falcetta, Alessio Mongelluzzo and Manuel Roveri
Politecnico di Milano, Italy

9:00PM On the (Un)Reliability of Privacy Policies in Android Apps [#21625]

Verderame Luca, Caputo Davide, Romdhana Andrea and Merlo Alessio
University of Genoa, Italy

9:20PM OIAD: One-for-all Image Anomaly Detection with Disentanglement Learning [#20388]

Shuo Wang, Chen Tianle, Chen Shanyu, Rudolph Carsten, Nepal Surya and Grobler Marthie
Monash University and CSIRO, Australia; Monash University, Australia; The University of Melbourne, Australia; CSIRO, Australia

9:40PM Data-Aware Declarative Process Mining for Malware Detection [#21418]

Pasquale Ardimento, Lerina Aversano, Mario Luca Bernardi and Marta Cimitile
University of Bari Aldo Moro, Italy; University of Sannio, Italy; Unitelma Sapienza University, Italy

Special Session I-SS4-28: AI Technologies in IoT, CI & Software Engineering

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 5, Chair: Prashant Gupta, Mario Luca Bernardi

8:00PM Non-Intrusive Appliance Load Monitoring in an Intelligent Device at the Edge layer [#21869]

Jose Alonso Aguirre-Nunez, Juan Pablo Serrano-Rubio and Rafael Herrera-Guzman
Tecnologico Nacional de Mexico/ITS de Irapuato, Mexico; Center for Research in Mathematics (CIMAT), Mexico

8:20PM Deep Learning Towards Intelligent Vehicle Fault Diagnosis [#20959]

Mohammed Al-Zeyadi, Javier Andreu-Perez, Hani Hagrass, Chris Royce, Darren Smith, Piotr Rzonsowski and Ali Malik
Essex.ac.uk, United Kingdom; Cognitran.com, United Kingdom; Cognitran.com, Poland; Tudublin.ie, Ireland

8:40PM Intelligent Industrial IoT system for detection of short-circuit failure in windings of wind turbines [#21734]

Marcos A. Araujo Ferreira Junior, Luis Fabricio de F. Souza, Francisco Hercules dos S. Silva, Elene Firmeza Ohata, Jefferson Silva Almeida and Pedro Pedrosa Reboucas Filho
IFCE, Brazil; UFC, Brazil

9:00PM Hierarchical Embedding for Code Search in Software Q&A Sites [#20665]

Ruitong Li, Gang Hu and Min Peng
National Engineering Research Center for Multimedia Software, School of Computer Science, Wuhan University, China

9:20PM A Developer Recommendation Method Based on Code Quality [#21644]

Matheus da Silva, Andre Cizotto and Emerson Paraiso
Pontificia Universidade Catolica do Parana, Brazil; Siemens Ltd, Brazil

9:40PM A Topic Modeling Approach To Evaluate The Comments Consistency To Source Code [#21232]

Martina Iammarino, Lerina Aversano, Mario Luca Bernardi and Marta Cimitile
Department of Engineering University of Sannio, Italy; Unitelma Sapienza University, Italy

Session I-R26: Semi-supervised learning

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 6, Chair: Anne Canuto

8:00PM Kernelized Constrained Gaussian Fields and Harmonic Functions for Semi-supervised Learning [#20509]

Celso Sousa
University of Fortaleza, Brazil

8:20PM An Optimized Modularity-Based High Level Classification Model [#20673]

Tiago Colliri, Liu Weiguang and Liang Zhao
University of Sao Paulo, Brazil; Zhongyuan University of Technology, China

8:40PM A Semi-supervised Based Framework for Data Stream Classification in Non-Stationary Environments [#21467]

Arthur Gorgonio, Anne Canuto, Karliane Vale and Flavius Gorgonio
Federal University of Rio Grande do Norte, Brazil

9:00PM Deep Neural-Gas Clustering for Instance Segmentation across Imaging Experiments [#21547]

Philipp Gruening and Amir Madany Mamlouk
Institute for Neuro- and Bioinformatics, University of Luebeck, Germany

9:20PM Pseudo-Labeling and Confirmation Bias in Deep Semi-Supervised Learning [#20260]

Eric Arazo, Diego Ortego, Paul Albert, Noel E. O'Connor and Kevin McGuinness
Insight Centre for Data Analytics, Dublin City University (DCU), Ireland

9:40PM Semi-supervised GANs for Fraud Detection [#20824]

Charitos Charitou, Artur Garcez and Simo Dragicevic
City, University of London, United Kingdom; Playtech Plc, United Kingdom

Session I-R27:

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Room 7, Chair: Dong Chen

8:00PM Multi-Grained Selection and Fusion for Fine-Grained Image Representation [#21299]

Jianrong Jiang and Hongxing Wang
Key Laboratory of Dependable Service Computing in Cyber Physical Society, Chongqing University, China

8:20PM A Continuous Restricted Boltzmann Machine and Logistic Regression Framework for Circuit Classification [#21729]

Leandro Maia Silva, Fabricio Vivas Andrade and Luiz Filipe Menezes Vieira
Universidade Federal de Minas Gerais, Brazil; Centro Federal de Educacao Tecnologica, Brazil

8:40PM Modeling Pharmacological Effects with Multi-Relation Unsupervised Graph Embedding [#20612]

Dehua Chen, Amir Jalilifard, Adriano Veloso and Nivio Ziviani
CS Dept. UFMG & Kunumi, Brazil; CS Dept. UFMG, Brazil

9:00PM Unsupervised Deep Imputed Hashing for Partial Cross-modal Retrieval [#20071]

Dong Chen, Miaomiao Cheng, Chen Min and Liping Jing
Beijing Key Lab of Traffic Data Analysis and Mining, Beijing Jiaotong University, 100089 Beijing, China, China

9:20PM SECL: Separated Embedding and Correlation Learning for Demographic Prediction in Ubiquitous Sensor Scenario [#20352]

Yiwen Jiang, Wei Tang, Neng Gao, Chenyang Tu, Jia Peng and Min Li
State Key Laboratory of Information Security, CAS; School of Cyber Security, University of Chinese Academy of Sciences, China; State Key Laboratory of Information Security, CAS; School of Cyber Security, University of Chinese Academy of Sciences, China; State Key Laboratory of Information Security, CAS, China

9:40PM DHD-Net: A Novel Deep-Learning-based Dehazing Network [#20802]

Liangru Xie, Hao Wang, Zhuowei Wang and Lianglun Cheng
School of Computers, Guangdong University of Technology, China; Department of Computer Science, Norwegian University of Science & Technology, Norway

Plenary Poster Session I-P17: Supervised Learning

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Poster Room 1, Chair: Turgay Celik

P3301 Machine Learning Based Seismic Region Classification [#21655]

Samuel da Silva Oliveira, Anne Magaly de Paula Canuto, Bruno Motta de Carvalho and Marcio Eduardo Kreutz
Universidade Federal do Rio Grande do Norte, Brazil

P3302 Optimal Clusters Generation for Maximizing Ensemble Classifier Performance [#21003]

Jan Zohaib and Verma Brijesh
Central Queensland University, Australia

P3303 Learning with Partial Multi-Outlooks [#21715]

Jing Chen, Yi He and Vijay Raghavan
School of Computing and Informatics, University of Louisiana at Lafayette, United States

P3304 One-Class Classification for Selecting Synthetic Datasets in Meta-Learning [#20611]

Regina R. Parente and Ricardo B. C. Prudencio
Universidade Federal de Pernambuco, Brazil

P3305 Nonlinear Logistic Regression Model Based On Simplex Basis Function [#20015]

Xia Hong, Hong Wei and Junbin Gao
University of Reading, United Kingdom; University of Sydney, Australia

P3306 Regularizing Pattern Recognition with Conditional Probability Estimates [#21944]

Thomas Vacek
Thomson Reuters, United States

P3307 Real-time anomaly intrusion detection for a clean water supply system, utilising machine learning with novel energy-based features [#21388]

Andres Robles-Durazno, Naghme Moradpoor, James McWhinnie and Gordon Russell
Edinburgh Napier University, United Kingdom

P3308 Adaptive Neuron-wise Discriminant Criterion and Adaptive Center Loss at Hidden Layer for Deep Convolutional Neural Network [#20427]

Motoshi Abe, Junichi Miyao and Takio Kurita
Hiroshima University, Japan

P3309 Classification of Cyberbullying Text in Arabic [#21178]

Azzeddine Rachid Benaissa, Azza Harbaoui and Hajjami Henda Ben Ghezala
RIADI Laboratory, National School of Computer Sciences, La Manouba University, Tunisia

- P3310 Convergence Rate Analysis of Viscosity Approximation based Gradient Algorithms [#21906]**
Prayas Jain, Mridula Verma and Kaushal Shukla
IIT (BHU) Varanasi, India
- P3311 Assessing Accident Risk using Ordinal Regression and Multinomial Logistic Regression Data Generation [#20256]**
Gulsum Alicioglu, Bo Sun and Shen Shyang Ho
Rowan University, United States
- P3312 Systematic study on dimensionality reduction in the gesture phase segmentation problem [#21718]**
Victor Nicola, Renata Madeo and Sarajane Peres
University of Sao Paulo, Brazil; Regional Federal Court of the 3rd Region, Brazil
- P3313 Seasonal Averaged One-Dependence Estimators: A Novel Algorithm to Address Seasonal Concept Drift in High-Dimensional Stream Classification [#21051]**
Rakshitha Godahewa, Trevor Yann, Christoph Bergmeir and Francois Petitjean
Monash University, Australia; Seek Group, Australia
- P3314 Item Response Theory for Evaluating Regression Algorithms [#20921]**
Joao Moraes, Jessica Reinaldo, Telmo Silva Filho and Ricardo Prudencio
Universidade Federal de Pernambuco, Brazil; Universidade Federal da Paraiba, Brazil
- P3315 Process Model Modularization by Subprocess Discovery [#20851]**
Sergio Angelastro and Stefano Ferilli
University of Bari, Italy
- P3316 Mu-suppression detection in motor imagery electroencephalographic (EEG) signals using the generalized extreme value distribution [#20898]**
Antonio Quintero-Rincon, Carlos D'Giano and Hadj Batatia
FLENI, Argentina; University of Toulouse, France

Plenary Poster Session I-P18:

Wednesday, July 22, 8:00PM-10:00PM, Room: IJCNN Poster Room 2, Chair: Miltos Alamaniotis

- P3501 Detection of Safety Helmet Wearing Based on Improved Faster R-CNN [#20221]**
Songbo Chen, Wenbo Wang, Ye Ouyang, Huiling Zhu, Tianyao Ji and Wenhui Tang
Zhejiang University, China; Qingyuan Power Supply Bureau, China; South China University of Technology, China
- P3502 Intelligent Classification and Automatic Annotation of Violations based on Neural Network Language Model [#20180]**
Yaoquan Yu, Yuefeng Guo, Zhiyuan Zhang, Mengshi Li, Tianyao Ji, Wenhui Tang and Qinghua Wu
Qingyuan Power Supply Bureau, China; South China University of Technology, China
- P3503 Predicting Insulation Resistance of Enamelled Wire using Neural Network and Curve Fit Methods Under Thermal Aging [#20759]**
Gulrukh Turabee, Georgina Cosma, Vincenzo Madonna, Paolo Giangrande, Muhammad Raza Khowja, Gaurang Vakil, Chris Gerada and Michael Galea
School of Science & Technology Nottingham Trent University, United Kingdom; School of Science Loughborough University, United Kingdom; PEMC Research Group The University of Nottingham, United Kingdom; Key Laboratory of MEA Technology The University of Nottingham Ningbo, China, China

- P3504 A Neural Network Toolbox for Electricity Consumption Forecasting [#20372]**
Jaroslaw Protasiewicz
National Information Processing Institute, Poland
- P3505 Echo State Network Performance in Electrical and Industrial Applications [#21979]**
Muhammad Mansoor, Francesco Grimaccia and Marco Mussetta
Politecnico di Milano, Italy
- P3506 Multi-Label Auto-Encoder based Electrical Load Disaggregation [#21415]**
Spoorthy Paresh, Naveen Kumar Thokala, Angshul Majumdar and M Girish Chandra
Tata Consultancy Services Limited., India; Tata Consultancy Services Limited, India
- P3507 Recurrent Neural Network-based Base Transceiver Station Power Supply System Failure Prediction [#21329]**
Yonas Tefera, Tewodros Kibatu, Bethelhem Shawel and Dereje Woldegebreal
Addis Ababa University, Ethiopia; Ethio Telecom, Ethiopia
- P3508 Probabilistic Prediction of Solar Generation Based on Stacked Autoencoder and Lower Upper Bound Estimation Method [#20101]**
Cheng Pan and Jie Tan
Institute of Automation, Chinese Academy of Sciences; University of Chinese Academy of Sciences, China; Institute of Automation, Chinese Academy of Sciences, China
- P3509 An Online Model for Scheduling Electric Vehicle Charging at Park-and-Ride Facilities for Flattening Solar Duck Curves [#20535]**
Raka Jovanovic, Sertac Bayha and Islam Safak Bayram
Hamad bin Khalifa University, Qatar; University of Strathclyde, United Kingdom
- P3510 Prediction of Customer Status in Corporate Banking Using Neural Networks [#20149]**
Stanislaw Osowski and Lukasz Sierenski
Warsaw University of Technology, Military University of Technology, Poland; Warsaw University of Technology, Poland
- P3511 Effective Automated Feature Derivation via Reinforcement Learning for Microcredit Default Prediction [#20444]**
Mengnan Song, Jiasong Wang, Tongtong Zhang, Guoguang Zhang, Ruijun Zhang and Sui Su
360 Financial, China
- P3512 LSTM-Based Quantitative Trading Using Dynamic K-Top and Kelly Criterion [#21104]**
Binjing Li, Keli Xie, Siyuan Lu, Jun Lin and Zhongfeng Wang
School of Electronic Science and Engineering, Nanjing University, Nanjing, China
- P3513 Multiple Stock Time Series Jointly Forecasting with Multi-Task Learning [#20194]**
Tao Ma and Ying Tan
Peking University, China
- P3514 Stock Price Manipulation Detection based on Autoencoder Learning of Stock Trades Affinity [#21534]**
Baqar Rizvi, Ammar Belatreche, Ahmed Bouridane and Kamlesh Mistry
Dept. of Computer & Information Sciences, Northumbria University, Newcastle, United Kingdom
- P3515 Deep Probabilistic Modelling of Price Movements for High-Frequency Trading [#20300]**
Ye-Sheen Lim and Denise Gorse
University College London, United Kingdom
- P3516 Beating the Stock Market with a Deep Reinforcement Learning Day Trading System [#21857]**
Leonardo Conegundes and Adriano Machado
Universidade Federal de Minas Gerais, Brazil

P3517 Personalized Digital Customer Services for Consumer Banking Call Centre using Neural Networks [#20985]

Xuejie Zhang, Samarth Agarwal, Ruth Hui Yi Choy, Kay Jan Wong, Lecia Kai Heng Lim, Ying Yang Lee and John Jianan Lu

DBS Bank, Singapore

P3518 Bias-regularised Neural-Network Metamodelling of Insurance Portfolio Risk [#20697]

Wei Luo, Akib Mashrur, Antonio Robles-Kelly and Gang Li

Deakin University, Australia

P3519 Isolation Forest Based Multi-Source Unsupervised Transfer Learning for Missing GDP Prediction [#21929]

Sandeep Kumar, Amit K. Shukla and Pranab K. Muhuri

South Asian University, India

THURSDAY, JULY 23

Session I-R28: Fuzzy and Large Scale neural networks

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 1, Chair: Aaron Young, Adam Foshie

- 3:30PM Fuzzy Graph Neural Network for Few-Shot Learning [#20737]**
Tong Wei, Junlin Hou and Rui Feng
Fudan University, China
- 3:50PM An Asymmetric Neuro-Fuzzy Model for the Detection of Meat Spoilage [#20399]**
Vassilis Kodogiannis and Abeer Alshejari
University of Westminster, United Kingdom; Princess Nourah bint Abdulrahman University, Saudi Arabia
- 4:10PM An Improved Online Learning Algorithm for General Fuzzy Min-Max Neural Network [#20125]**
Thanh Tung Khat, Fang Chen and Bogdan Gabrys
University of Technology Sydney, Australia
- 4:30PM GEMM-eMFIS (FRI/E): A Novel General Episodic Memory Mechanism for Fuzzy Neural Networks [#20839]**
Sheng Wei Pang, Chai Quek and Dilip K. Prasad
Nanyang Technological University, Singapore; UiT The Arctic University of Norway, Norway
- 4:50PM PSO-PS:Parameter Synchronization with Particle Swarm Optimization for Distributed Training of Deep Neural Networks [#20716]**
Qing Ye, Yuxuan Han, Yanan Sun and Jiancheng Lv
Sichuan University, China
- 5:10PM Scaled-up Neuromorphic Array Communications Controller (SNACC) for Large-scale Neural Networks [#20433]**
Aaron Young, Adam Foshie, Mark Dean, James Plank, Garrett Rose, John Mitchell and Catherine Schuman
University of Tennessee, United States; Oak Ridge National Laboratory, United States

Special Session I-SS10: Recurrent Neural Information Processing: Models and Applications

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 2, Chair: Zheng Yan

- 3:30PM Creating Corpora for Seq2Seq Tone Rephrasing Using Social Media Posts [#20148]**
Paulo Cavalin, Marisa Vasconcelos, Marcelo Grave and Claudio Pinhanez
IBM Research, Brazil
- 3:50PM An Input Residual Connection for Simplifying Gated Recurrent Neural Networks [#20276]**
Nicholas I.H. Kuo, Mehrtash Harandi, Nicolas Fourrier, Christian Walder, Gabriela Ferraro and Hanna Suominen
The Australian National University, Australia; Monash University, Australia; Leonard de Vinci Pole Universitaire, France; Commonwealth Scientific and Industrial Research Organization, Australia
- 4:10PM Multiple-source Domain Adaptation in Rule-based Neural Network [#20368]**
Hua Zuo, Jie Lu and Guangquan Zhang
University of Technology Sydney, Australia

4:30PM Multi-Source Domain Adaptation with Distribution Fusion and Relationship Extraction [#20542]

Keqiyin Li, Jie Lu, Hua Zuo and Guangquan Zhang
University of Technology Sydney, Australia

4:50PM Prediction of Weather Radar Images via a Deep LSTM for Nowcasting [#20553]

Yao Guang, Liu Zongxuan, Guo Xufeng, Wei Chaoshi, Li Xinfeng and Chen Zhihao
Em-Data, China; ECATMB, China

5:10PM Multi-step LSTM Prediction Model for Visibility Prediction [#20979]

Yunlong Meng, Fengliang Qi, Heng Zuo, Bo Chen, Xian Yuan and Yao Xiao
Em-Data, China; ECATMB, China

Special Session I-SS46: Intelligent Vehicle and Transportation Systems

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 3, Chair: Alberto Ferreira De Souza

3:30PM Mission-Aware Spatio-Temporal Deep Learning Model for UAS Instantaneous Density Prediction [#20598]

Ziyi Zhao, Zhao Jin, Wentian Bai, Wentan Bai, Carlos Caicedo, Mustafa Gursoy and Qinru Qiu
Syracuse University, United States

3:50PM Visual-to-Semantic Hashing for Zero Shot Learning [#20989]

Xin Li, Xiaoyue Wen, Bo Jin, Xiangfeng Wang, Junjie Wang and Jinghui Cai
East China Normal University, China; Engineering Research Center of Intelligent Transport of Zhejiang Province Enjoyor Co., Ltd, China

4:10PM Adaptive Spatio-Temporal Graph Convolutional Neural Network for Remaining Useful Life Estimation [#21125]

Zhang Yuxuan, Li Yuanxiang, Wei Xian and Jia Lei
Shanghai Jiao Tong University, China; Chinese Academy of Sciences, China

4:30PM Image-Based Real-Time Path Generation Using Deep Neural Networks [#21843]

Gabriel Moraes, Anderson Mozart, Pedro Azevedo, Marcos Piumbini, Vinicius B. Cardoso, Thiago Oliveira-Santos, Alberto F. De Souza and Claudine Badue
Universidade Federal do Espirito Santo, Brazil

4:50PM A Large-Scale Mapping Method Based on Deep Neural Networks Applied to Self-Driving Car Localization [#21863]

Vinicius B. Cardoso, Andre Seidel Oliveira, Avelino Forechi, Pedro Azevedo, Filipe Mutz, Thiago Oliveira-Santos, Claudine Badue and Alberto F. De Souza
Universidade Federal do Espirito Santo, Brazil; Instituto Federal do Espirito Santo, Brazil

5:10PM Asymmetric Loss Functions for Deep Learning Early Predictions of Remaining Useful Life in Aerospace Gas Turbine Engines [#21629]

Divish Rengasamy, Benjamin Rothwell and Graziela Figueredo
University of Nottingham, United Kingdom

Special Session I-SS13A: Biologically Inspired Cognitive Robotics

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 4, Chair: Wei Hong Chin

3:30PM A Calculation Method of the Similarity Between Trained Model and New Sample by using Gaussian Distribution [#21024]

Matsufuji Akihiro, Sekino Haruka, Sato-Shimokawara Eri and Yamaguchi Toru
Tokyo Metropolitan University, Japan

- 3:50PM Combining Reinforcement Learning and Rule-based Method to Manipulate Objects in Clutter [#20327]**
Yiwen Chen, Zhaojie Ju and Chenguang Yang
School of Automation Science and Engineering, South China University of Technology, China; School of Computing, University of Portsmouth, United Kingdom; Bristol Robotics Laboratory, University of the West of England, United Kingdom
- 4:10PM Robotic grasp detection using effective graspable feature selection and precise classification [#20329]**
Jiahao Zhang, Miao Li and Chenguang Yang
South China University of Technology, China; Wuhan University, China; University of the West of England, China
- 4:30PM Psychological Effects of Compliment Expressions by Communication Robots on Humans [#21203]**
Motoki Iwashita and Daisuke Katagami
Tokyo Polytechnic University, Japan, Japan
- 4:50PM Cognitive Modeling Based on Perceiving-Acting Cycle in Robotic Avatar System for Disabled Patients [#21639]**
Takenori Obo, Ryoya Hase, Kohei Kobayashi, Kotaro Sueta, Takeru Nakano and Duk Shin
Tokyo Polytechnic University, Japan
- 5:10PM A-mode Ultrasound Driven Sensor Fusion for Hand Gesture Recognition [#21709]**
Peter Boyd and Honghai Liu
University of Portsmouth, United Kingdom

Special Session I-SS15: Intelligent Control: Methods and Applications

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 5, Chair: Callum Wilson

- 3:30PM A Novel Update Mechanism for Q-Networks Based On Extreme Learning Machines [#21370]**
Callum Wilson, Annalisa Riccardi and Edmondo Minisci
University of Strathclyde, United Kingdom
- 3:50PM Online Optimal Adaptive Control of a Class of Uncertain Nonlinear Discrete-time Systems [#21816]**
Rohollah Moghadam, Pappa Natarajan, Krishnan Raghavan and Sarangapani Jagannathan
Missouri University of Science and Technology, United States; Argonne National Laboratory, United States
- 4:10PM A Bayesian perspective on classical control [#21175]**
Manuel Baltieri
Laboratory for Neural Computation and Adaptation, RIKEN Centre for Brain Science, Japan
- 4:30PM Neural H2 Control Using Reinforcement Learning for Unknown Nonlinear Systems [#21468]**
Perrusquia Adolfo and Yu Wen
CINVESTAV-IPN, Mexico
- 4:50PM Towards Intelligent Control via Genetic Programming [#21270]**
Francesco Marchetti, Edmondo Minisci and Annalisa Riccardi
University of Strathclyde, United Kingdom
- 5:10PM Optimizing Filter-bank Canonical Correlation Analysis for fast response SSVEP Brain-Computer Interface (BCI) [#20467]**
Aung Aung Phyo Wai, Heng Guo, Ying Chi, Lei Zhang, Xian-Sheng Hua and Cuntai Guan
Nanyang Technological University, Singapore; Alibaba Group Holding Ltd, China

Session I-R29: Deep learning I

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 6, Chair: Mufti Mahmud

- 3:30PM Capsule Based Neural Network Architecture to perform completeness check for Patent Eligibility Process [#21056]**
Saurabh Srivastava, Puneet Agarwal, Gautam Shroff, Lovekesh Vig and Vidya Vikas
TCS Research, India; Tata Consultancy Services, India
- 3:50PM Towards Quantifying Intrinsic Generalization of Deep ReLU Networks [#20735]**
Shaeke Salman, Canlin Zhang, Xiuwen Liu and Washington Mio
Florida State University, United States
- 4:10PM KutralNet: A Portable Deep Learning Model for Fire Recognition [#20875]**
Angel Ayala, Bruno Fernandes, Francisco Cruz, David Macedo, Adriano L. I. Oliveira and Cleber Zanchettin
Universidade de Pernambuco, Brazil; Deakin University, Australia; Universidade Federal de Pernambuco, Brazil
- 4:30PM Improving Feature's Capability of Carrying Category-specific Information for Adversarial Domain Adaptation [#20026]**
Yundong Li, Chen Lin, Wei Hu and Han Dong
North China University of Technology, China
- 4:50PM Att-DARTS: Differentiable Neural Architecture Search for Attention [#21042]**
Kohei Nakai, Takashi Matsubara and Kuniaki Uehara
Graduate School of System Informatics, Kobe University, Japan; Graduate School of Engineering Science, Osaka University, Japan; Faculty of Business Administration, Osaka Gakuin University, Japan
- 5:10PM Zero-Shot Object Detection with Textual Descriptions Using Convolutional Neural Networks [#20024]**
Licheng Zhang, Xianzhi Wang, Lina Yao and Feng Zheng
University of Technology Sydney, Australia; University of New South Wales, Australia; Southern University of Science and Technology, China

Competition I-COMP: IJCNN Competitions

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Room 7

Plenary Poster Session I-P19: Unsupervised learning and clustering (including PCA and ICA)

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Poster Room 1, Chair: Jamil Al Shaqsi

- P3701 Plant Leaf Recognition Using Texture Features and Semi-Supervised Spherical K-means Clustering [#20010]**
Shadi Alamoudi, Xia Hong and Hong Wei
University of Reading, United Kingdom
- P3702 OvNMTF Algorithm: an Overlapping Non-Negative Matrix Tri-Factorization for Coclustering [#21184]**
Waldyr Lourenco de Freitas Junior, Sarajane Marques Peres, Valdinei Freire and Lucas Fernandes Brunialti
University of Sao Paulo, Brazil; Cobli, Brazil

- P3703 Not All Synonyms Are Created Equal: Incorporating Similarity of Synonyms to Enhance Word Embeddings [#20030]**
Peiyang Liu, Wei Ye, Xiangyu Xi, Tong Wang, Jinglei Zhang and Shikun Zhang
Peking University, China
- P3704 Federated learning with hierarchical clustering of local updates to improve training on non-IID data [#21121]**
Christopher Briggs, Zhong Fan and Peter Andras
Keele University, United Kingdom
- P3705 The Variational Infomax AutoEncoder [#21094]**
Vincenzo Crescimanna and Bruce Graham
University of Stirling, United Kingdom
- P3706 Unsupervised Clustering through Gaussian Mixture Variational AutoEncoder with Non-Reparameterized Variational Inference and Std Annealing [#20139]**
Zhihan Li, Youjian Zhao, Haowen Xu, Wenxiao Chen, Shangqing Xu, Yilin Li and Dan Pei
Tsinghua University, China
- P3707 Improved Hierarchical Clustering with Non-locally Enhanced Features for Unsupervised Person Re-identification [#20330]**
Wanyu Zhao, Bairong Li, Qinghua Gu and Yuesheng Zhu
Shenzhen Graduate School, Peking University, China
- P3708 Non-conjugate Posterior using Stochastic Gradient Ascent with Adaptive Stepsize [#20253]**
Kart-Leong Lim
Institute of Microelectronics, A*Star, Singapore
- P3709 Variational Clustering: Leveraging Variational Autoencoders for Image Clustering [#21426]**
Vignesh Prasad, Dipanjan Das and Brojeshwar Bhowmick
Technical University of Darmstadt, Germany; Embedded Systems and Robotics, TCS Research & Innovation, Kolkata, India
- P3710 Optimizing Recommendations for Clustering Algorithms Using Meta-Learning [#20336]**
Adam Jilling and Marco Alvarez
University of Rhode Island, United States
- P3711 Unsupervised Learning of Disentangled Location Embeddings [#20559]**
Kun Ouyang, Yuxuan Liang, Wenzhuo Yang, Ye Liu and David Rosenblum
School of Computing, National University of Singapore, Singapore; BiGO Technology, Singapore
- P3712 TopoBARTMAP: Biclustering ARTMAP With or Without Topological Methods in a Blood Cancer Case Study [#21947]**
Raghu Yelugam, Leonardo Enzo Brito da Silva and Donald C. Wunsch II
Missouri University of Science and Technology, United States
- P3713 Binarized Attributed Network Embedding via Neural Networks [#21367]**
Hangyu Xia, Neng Gao, Jia Peng, Jingjie Mo and Jiong Wang
Chinese Academy of Sciences, China
- P3714 BalNode2Vec: Balanced Random Walk based Versatile Feature Learning for Networks [#21774]**
Amirreza Salamat, Xiao Luo and Ali Jafari
Department of ECE IUPUI, United States
- P3715 Stochastic Curiosity Maximizing Exploration [#20635]**
Jen-Tzung Chien and Po-Chien Hsu
National Chiao Tung University, Taiwan

P3716 Assistive System for Navigating Complex Realistic Simulated World Using Reinforcement Learning [#21004]

Faruk Ahmed, Md Sultan Mahmud and Mohammed Yeasin
University of Memphis, United States

P3717 Novel Use of Self-organizing Map for Q-matrix Calibration in Cognitive Diagnosis Assessment [#20705]

Xi-Tian Chen, Zhengjia Dai and Ying Lin
Department of Psychology, Sun Yat-sen University, China

Plenary Poster Session I-P20:

Thursday, July 23, 3:30PM-5:30PM, Room: IJCNN Poster Room 2, Chair: Nalin Senthamil

P3901 Reinforcement Mechanism Design for Electric Vehicle Demand Response in Microgrid Charging Stations [#20486]

Luyang Hou, Shuai Ma, Jun Yan, Chun Wang and Jia Yuan Yu
Concordia University, Canada

P3902 Automatic offensive language detection from Twitter data using machine learning and feature selection of metadata [#20143]

Gabriel Araujo De Souza and Marjory Da Costa-Abreu
UFRN, Brazil; Sheffield Hallam University, United Kingdom

P3903 A reputation-enhanced model for trust-based collaborative filtering recommender system [#20074]

LinShan Shen, Shaobin Huang and Xiangke Mao
Harbin Engineering University, China

P3904 A Hybrid Firefly Algorithm Based on Orthogonal Opposition [#20132]

YingYing Ge, Jun Li and ChenYing Meng
College of Computer Science and Technology, Wuhan University of Science and Technology, China

P3905 Expose Your Mask: Smart Ponzi Schemes Detection on Blockchain [#21182]

Shuhui Fan, Shaojing Fu, Haoran Xu and Chengzhang Zhu
National University of Defense Technology, China; National University of Defense Technology; State Key Laboratory of Cryptology, China; Academy of Military Sciences, China

P3906 Perceptron-Learning for Scalable and Transparent Dynamic Formation in Swarm-on-Swarm Shepherding [#21785]

Tung Nguyen, Jing Liu, Hung Nguyen, Kathryn Kasmarik, Sreenatha Anavatti, Matthew Garratt and Hussein Abbass
The University of New South Wales - Canberra, Australia

P3907 Enhancing the Detection of Criminal Organizations in Mexico using ML and NLP [#21871]

Javier Osorio and Alejandro Beltran
University of Arizona, United States

P3908 Using Autoencoders for Anomaly Detection in Hard Disk Drives [#21443]

Francisco Pereira, Iago Chaves, Joao Gomes and Javam Machado
Federal University of Ceara, Brazil

P3909 Adaptation of a wheel loader automatic bucket filling neural network using reinforcement learning [#20563]

Siddharth Dadhich, Fredrik Sandin, Ulf Bodin, Ulf Andersson and Torbjorn Martinsson
Lulea University of Technology, 97187, Lulea, Sweden, Sweden; Volvo CE, Bolindervagen 5, 63185, Eskilstuna, Sweden, Sweden

- P3910 On the Evaluation of Prohibited Item Classification and Detection in Volumetric 3D Computed Tomography Baggage Security Screening Imagery [#21401]**
Qian Wang, Neelanjan Bhowmik and Toby P. Breckon
Durham University, United Kingdom
- P3911 Deep Learning for Cavitating Marine Propeller Noise Prediction at Design Stage [#20458]**
Luca Oneto, Francesca Cipollini, Leonardo Miglianti, Giorgio Tani, Stefano Gaggero, Andrea Coraddu and Michele Viviani
University of Genoa, Italy; Strathclyde University, United Kingdom
- P3912 GA-MSSR: Genetic Algorithm Maximizing Sharpe and Sterling ratio method for RoboTrading [#21079]**
Zezheng Zhang and Matloob Khushi
School of Computer Science, The University of Sydney, Australia
- P3913 A Hybrid Context-aware Framework to Detect Abnormal Human Daily Living Behavior [#21560]**
Roghayeh Mojarad, Ferhat Attal, Abdelghani Chibani and Yacine Amirat
Univ Paris Est Creteil, LISSI, F-94400 Vitry, France
- P3914 Survey on Automated End-to-End DataScience? [#20606]**
Djallel Bouneffouf, Charu Aggarwal, Horst Samulowitz, Beat Buesser, Thanh Hoang, Udayan Khurana, Sijia Liu, Tejaswini Pedapati, Parikshit Ram, Amrith Rawat, Martin Wistuba and Alexander Gray
IBM Research, United States
- P3915 Leveraging Multisource Information in Matrix Factorization for Social Collaborative Filtering [#20165]**
Lele Huang, Huifang Ma, Xiangchun He and Liang Chang
College of Computer Science and Engineering, Northwest Normal University, China; College of Education Technology, Northwest Normal University., China; Computer Science and Information Security, Guilin University of Electronic Technology, China

Session I-R30: Modular Networks

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 1, Chair: Yifeng Li, Xiaodan Zhu

- 5:45PM Spatio-Temporal Distributed Solar Irradiance and Temperature Forecasting [#21781]**
Chirath Pathiravasam, Paranietharan Arunagirinathan, Iroshani Jayawardene, Ganesh K. Venayagamoorthy and Yongqiang Wang
Clemson University, United States
- 6:05PM High Capacity Deep Block Classifiers with Logistic Neurons and Random Coding [#21210]**
Olaoluwa Adigun and Bart Kosko
University of Southern California, United States
- 6:25PM Adaptive Graph Convolutional Networks with Attention Mechanism for Relation Extraction [#20069]**
Zhixin Li, Yaru Sun, Suqin Tang, Canlong Zhang and Huifang Ma
Guangxi Normal University, Guangxi Key Lab of Multi-source Information Mining and Security, China; Northwest Normal University, College of Computer Science and Engineering, China
- 6:45PM FCN+RL: A Fully Convolutional Network followed by Refinement Layers to Offline Handwritten Signature Segmentation [#21703]**
Celso A. M. L. Lopes Junior, Matheus Henrique Marques da Silva, Byron Leite Dantas Bezerra, Bruno Jose Torres Fernandes and Donato Impedovo
Universidade de Pernambuco, Brazil; University of Bari, Italy

- 7:05PM Capsule Deep Generative Model That Forms Parse Trees [#21951]**
 Yifeng Li, Xiaodan Zhu, Richard Naud and Pengcheng Xi
 Department of Computer Science, Brock University, Canada; Department of Electrical and Computer Engineering, Queen's University, Canada; Brain and Mind Research Institute, University of Ottawa, Canada; Digital Technologies Research Centre, National Research Council Canada, Canada
- 7:25PM 3D Memristor Crossbar Architecture for a Multicore Neuromorphic System [#21587]**
 B. Rasitha Fernando, Yangjie Qi, Chris Yakopcic and Tarek M. Taha
 University of Dayton, United States

Special Session I-SS27: Embedded AI for Real-Time Systems

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 2, Chair: Saibal Mukhopadhyay

- 5:45PM Pruning Filters while Training for Efficiently Optimizing Deep Learning Networks [#21949]**
 Sourjya Roy, Priyadarshini Panda, Gopalakrishnan Srinivasan and Anand Raghunathan
 Purdue University, United States; Yale University, United States
- 6:05PM FAuto: An Efficient GMM-HMM FPGA Implementation for Behavior Estimation in Autonomous Systems [#20303]**
 Junde Li, Navyata Gattu and Swaroop Ghosh
 Pennsylvania State University, United States
- 6:25PM Energy-efficient and Robust Cumulative Training with Net2Net Transformation [#20680]**
 Aosong Feng and Priyadarshini Panda
 Yale University, United States
- 6:45PM KTAN: Knowledge Transfer Adversarial Network [#20902]**
 Peiye Liu, Wu Liu, Huadong Ma, Zhewei Jiang and Mingoo Seok
 Beijing University of Posts and Telecommunications, China; JD, China; Columbia University, United States
- 7:05PM SAFE-DNN: A Deep Neural Network With Spike Assisted Feature Extraction For Noise Robust Inference [#20113]**
 Xueyuan She, Priyabrata Saha, Daehyun Kim, Yun Long and Saibal Mukhopadhyay
 Georgia Institute of Technology, United States
- 7:25PM Flex-PIM: A Ferroelectric FET based Vector Matrix Multiplication Engine with Dynamical Bitwidth and Floating Point Precision [#20772]**
 Yun Long, Edward Lee, Daehyun Kim and Saibal Mukhopadhyay
 Georgia Institute of Technology, United States

Special Session I-SS51: Neurocomputing and Cognition

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 3, Chair: Larry Manevitz

- 5:45PM Hiding Data in Images Using Spectral Filtering and Deep Neural Networks [#21398]**
 Hadar Shalev, Pe'erly Setter, Ruth Kimchi and Hagit Hel-Or
 University of Haifa, Israel
- 6:05PM Reconstructing Abstract Concepts and their Blends Via Computational Cognitive Modeling [#20860]**
 Rahul Sharma, Bernardete Ribeiro, Alexandre Miguel Pinto and Amilcar F Cardoso
 University of Coimbra, Portugal

6:25PM Geodesic Clustering of Positive Definite Matrices For Classification of Mental Disorder Using Brain Functional Connectivity [#21304]

Muhammad Abubakar Yamin, Jacopo Tessadori, Muhammad Usman Akbar, Michael Dayan, Vittorio Murino and Diego Sona

Pattern Analysis and Computer Vision, Istituto Italiano di Tecnologia, Genova, Italy. Department of Electrical, Electronics and Telecommunication Engineering and Naval Architecture, Universita degli Studi di Genova, Italy, Italy; Pattern Analysis and Computer Vision, Istituto Italiano di Tecnologia, Genova, Italy, Italy; Human Neuroscience Platform, Fondation Campus Biotech Geneva, Geneva, Switzerland., Switzerland; Pattern Analysis and Computer Vision, Istituto Italiano di Tecnologia, Genova, Italy. Department of Computer Science, Universita di Verona, Verona, Italy Huawei Technologies Ltd., Ireland Research Center, Dublin, Ireland, Ireland; Pattern Analysis and Computer Vision, Istituto Italiano di Tecnologia, Genova, Italy Neuroinformatics Laboratory, Fondazione Bruno Kessler, Trento, Italy, Italy

6:45PM Trait depressivity prediction with EEG signals via LSBoost [#20699]

Shenghuan Zhang, Brendan McCane, Phoebe Neo, Shabah Shadli and Neil McNaughton
University of Otago, New Zealand

7:05PM Mapping individual differences in cortical architecture using multi-view representation learning [#21505]

Akrem Sellami, Francois-Xavier Dupe, Bastien Cagna, Hachem Kadri, Stephane Ayache, Thierry Artieres and Sylvain Takerkart
LIS, Aix-Marseille Universite, France; INT, Aix-Marseille Universite, France

7:25PM Design and Selection of Features under ERP for Correlating and Classifying between Brain Areas and Dyslexia via Machine Learning [#20907]

Alex Frid and Larry Manevitz
The Technion, Israel Institute of Technology, Israel; Ariel University and University of Haifa, Israel

Special Session I-SC13B: Biologically Inspired Cognitive Robotics

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 4, Chair: Wei Hong Chin

5:45PM A Lightweight Neural-Net with Assistive Mobile Robot for Human Fall Detection System [#21298]

Wei Hong Chin, Noel Nuo Wi Tay, Naoyuki Kubota and Chu Kiong Loo
Tokyo Metropolitan University, Japan; University of Malaya, Malaysia

6:05PM A Muscle-Reflex Model of Forelimb and Hindlimb of Felidae Family of Animal with Dynamic Pattern Formation Stimuli [#21701]

Azhar Aulia Saputra, Wei Hong Chin, Auke Jan Ijspeert and Naoyuki Kubota
Tokyo Metropolitan University, Japan; Ecole Polytechnique Federale de Lausanne, Switzerland

6:25PM Multilayer Clustering Based on Adaptive Resonance Theory for Noisy Environments [#21789]

Narito Amako, Naoki Masuyama, Chu Loo, Yusuke Nojima, Yiping Liu and Hisao Ishibuchi
Osaka Prefecture University, Japan; University of Malaya, Malaysia; Southern University of Science and Technology, China

6:45PM Semi-Synthetic Images Generation for Efficient Convolutional Neural Networks Training in Autonomous Drone Racing [#21169]

Theo Morales, Andriy Sarabakha and Erdal Kayacan
DOPI, France; Nanyang Technological University, Singapore; Aarhus University, Denmark

7:05PM Deep Reinforcement Learning for Motion Planning of Quadrotors Using Raw Depth Images [#20795]

Efe Camci, Domenico Campolo and Erdal Kayacan
Nanyang Technological University, Singapore; Aarhus University, Denmark

7:25PM Muscle Vectors as Temporally Dense "Labels" [#21808]

Xiang Wu and Juyang Weng
Nanjing University of Science and Technology, China; Michigan State University, United States

Special Session I-SS33B: Computationally Intelligent Methods in Neural Data Processing

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 5, Chair: Mufti Mahmud

5:45PM Neural Network-based Artifact Detection in Local Field Potentials Recorded from Chronically Implanted Neural Probes [#21954]

Marcos Ignacio Fabietti, Mufti Mahmud, Ahmad Lotfi, Alberto Avena, David Guggenmos, Randolph Nudo and Michela Chiappalone
Dept of Computing & Technology, School of Science and Technology, Nottingham Trent University, Nottingham, United Kingdom; Rehab Technologies, Istituto Italiano di Tecnologia, Genova, Italy; Department of Physical Medicine and Rehabilitation, University of Kansas Medical Center, Kansas City, KS, United States

6:05PM Multivariate Models for Decoding Hearing Impairment using EEG Gamma-Band Power Spectral Density [#20201]

Md Sultan Mahmud, Faruk Ahmed, Mohammed Yeasin, Claude Alain and Gavin M. Bidelman
University of Memphis, United States; University of Toronto, Canada

6:25PM Robust feature learning method for epileptic seizures prediction based on long-term EEG signals [#21360]

Asma Baghdadi, Rahma Fourati, Yassine Aribi, Patrick Siarry and Adel M. Alimi
REGIM-Lab.: REsearch Group in Intelligent Machines, University of Sfax., Tunisia; LISSI Laboratory Paris-Est Creteil University, France

6:45PM MIEEG-GAN: Generating Artificial Motor Imagery Electroencephalography Signals [#21197]

Sujit Roy, Shirin Dora, Karl McCreadie and Girijesh Prasad
Intelligent Systems Research Centre, Ulster University, United Kingdom

7:05PM A Privacy-Preserving Generative Adversarial Network Method for Securing EEG Brain Signals [#20104]

Essam Debie, Nour Moustafa and Monica Whitty
University of New South Wales, Australia

7:25PM Self-Learning with Stochastic Triplet Loss [#21279]

Joao Ribeiro Pinto and Jaime S. Cardoso
INESC TEC and Universidade do Porto, Portugal

Session I-R31: Deep Learning II

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 6, Chair: Shuva Paul

5:45PM Rethinking Modal-oriented Label Correlations for Multi-modal Multi-label Learning [#20040]

Yi Zhang, Jundong Shen, Zhecheng Zhang, Lei Zhang and Chongjun Wang
Nanjing University, China

- 6:05PM IT-Block: Inverted Triangle Block embedded U-Net for Medical Image Segmentation [#20290]**
 Xueyang Li, Yongfeng Huang, Cairong Yan and Lihao Liu
 School of Computer Science and Technology, Donghua University, Shanghai, China
- 6:25PM One-Shot Unsupervised Domain Adaptation for Object Detection [#21517]**
 Zhiqiang Wan, Lusi Li, Hepeng Li, Haibo He and Zhen Ni
 University of Rhode Island, United States; Florida Atlantic University, United States
- 6:45PM Simple and Effective Prevention of Mode Collapse in Deep One-Class Classification [#20466]**
 Penny Chong, Lukas Ruff, Marius Kloft and Alexander Binder
 Singapore University of Technology and Design, Singapore; TU Berlin, Germany; TU Kaiserslautern, Germany
- 7:05PM An Improvement based on Wasserstein GAN for Alleviating Mode Collapsing [#20414]**
 Yingying Chen and Xinwen Hou
 Institute of Automation, Chinese Academy of Sciences, China
- 7:25PM Improving Generalization Performance of Adaptive Learning Rate by Switching from Block Diagonal Matrix Preconditioning to SGD [#20309]**
 Yasutoshi Ida and Yasuhiro Fujiwara
 NTT Software Innovation Center, Japan; NTT Communication Science Laboratories, Japan

Session I-R32: Applications of deep networks

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Room 7, Chair: Glen Rosendale

- 5:45PM Sparse Attributed Network Embedding via Adaptively Aggregating Neighborhood Information [#20618]**
 Ying Chen, Jingwei Zheng and Dagang Li
 Peking University, China; Macau University of Science and Technology, China
- 6:05PM Pre-trained Language Models with Limited Data for Intent Classification [#20196]**
 Buddhika Hasantha Kasthuriarachchy, Madhu Chetty, Gour Karmakar and Darren Walls
 Federation University Australia, Australia; Global Hosts Pty Ltd, Australia
- 6:25PM Deep Reinforcement Learning for Traveling Salesman Problem with Time Windows and Rejections [#20494]**
 Rongkai Zhang, Anatolii Prokhorchuk and Justin Dauwels
 Nanyang Technological University, Singapore
- 6:45PM Zero-Shot Source Code Author Identification: A Lexicon and Layout Independent Approach [#20305]**
 Pegah Hozhabrierdi, Dunai Fuentes Hitos and Chilukuri K. Mohan
 Syracuse University, United States; Independent Researcher, Spain
- 7:05PM Deep Active Learning for Anomaly Detection [#20324]**
 Tiago Pimentel, Marianne Monteiro, Adriano Veloso and Nivio Ziviani
 Kunumi, Brazil; Universidade Federal de Minas Gerais, Brazil
- 7:25PM Training DNN IoT Applications for Deployment On Analog NVM Crossbars [#21667]**
 Fernando Garcia-Redondo, Shidhartha Das and Glen Rosendale
 Arm Ltd, United Kingdom; Arm Ltd, United States

Plenary Poster Session I-P21: Reinforcement learning and adaptive dynamic programming
Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Poster Room 1, Chair: Neha Bharill, Abdulrahman Altahhan

P4101 Meta-Reward Model Based on Trajectory Data with k-Nearest Neighbors Method [#20812]

Xiaohui Zhu and Toshiharu Sugawara
Waseda University, Japan

P4102 Instance-Based Ensemble Selection Using Deep Reinforcement Learning [#21060]

Zhengshang Liu and Kotagiri Ramamohanarao
The University of Melbourne, Australia

P4103 Regret Analysis of Stochastic Multi-armed Bandit Problem with Clustered information Feedback [#20489]

Tianchi Zhao, Bo Jiang, Ming Li and Ravi Tandon
The University of Arizona, United States

P4104 Model Predictive Control Guided Reinforcement Learning Control Scheme [#21229]

Huimin Xie, Xinghai Xu, Yuling Li, Wenjing Hong and Jia Shi
Xiamen University, China; Imperial College London, United Kingdom

P4105 A Reinforcement Learning Algorithm for Resource Provisioning in Mobile Edge Computing Network [#21968]

Thi Thanh Binh Huynh, Phi Le Nguyen, Binh Minh Nguyen, Thu Hai Trinh, Quang Minh Ngo and Bao Son Do
School of Information and Communication Technology, Hanoi University of Science and Technology, Viet Nam; Faculty of Information Technology, University of Transport Technology, Viet Nam

P4106 True Online TD(λ)-Replay: An Efficient Model-free Planning with Full Replay [#21970]

Abdulrahman Altahhan
Leeds Beckett University, United Kingdom

P4107 On the Role of Reward Functions for Reinforcement Learning in the Traffic Assignment Problem [#20503]

Ricardo Grunitzki and Gabriel de Oliveira Ramos
Sidia Institute of Science & Technology, Brazil; Universidade do Vale do Rio dos Sinos - UNISINOS, Brazil

P4108 Design of a Reinforcement Learning PID controller [#21062]

Zhe Guan and Toru Yamamoto
Hiroshima University, Japan

P4109 Effective Linear Policy Gradient Search through Primal-Dual Approximation [#21452]

Yiming Peng, Chen Gang and Zhang Mengjie
Victoria University of Wellington, New Zealand

P4110 Learning Transferable Domain Priors for Safe Exploration in Reinforcement Learning [#21759]

Thommen George Karimpanal, Santu Rana, Sunil Gupta, Truyen Tran and Svetha Venkatesh
Deakin University, Australia

P4111 Monoceros: A New Approach for Training an Agent to Play FPS Games [#21854]

Ruiyang Yang, Hongyin Tang and Beihong Jin
University of Chinese Academy of Sciences, China

- P4112 Forest Fire Control with Learning from Demonstration and Reinforcement Learning [#21267]**
Travis Hammond, Dirk Jelle Schaap, Matthaia Sabatelli and Marco Wiering
University of Groningen, Netherlands; Montefiori Institute, Belgium
- P4113 Scaling Active Inference [#21732]**
Alexander Tschantz, Manuel Baltieri, Anil Seth and Christopher Buckley
University of Sussex, United Kingdom; RIKEN Centre for Brain Science, Japan
- P4114 Deep Reinforcement Learning with Successive Over-Relaxation and its Application in Auto-scaling Cloud Resources [#21269]**
Indu John and Shalabh Bhatnagar
Indian Institute of Science, Bangalore, India
- P4115 Safe Reinforcement Learning via Probabilistic Timed Computation Tree Logic [#20500]**
Li Qian and Jing Liu
East China Normal University, China
- P4116 Variational Bayesian Parameter-Based Policy Exploration [#21032]**
Tikara Hosino
Nihon Unisys, Ltd., Japan
- P4117 Q-learning with exploration driven by internal dynamics in chaotic neural network [#21128]**
Toshitaka Matsuki, Souya Inoue and Katsunari Shibata
Oita University, Japan
- P4118 Improved Stochastic Synapse Reinforcement Learning for Continuous Actions in Sharply Changing Environments [#21675]**
Syed Naveed Hussain Shah and Dean Frederick Hougen
Microsoft Corporation, United States; University of Oklahoma, United States
- P4119 HAMLET - A Learning Curve-Enabled Multi-Armed Bandit for Algorithm Selection [#20379]**
Mischa Schmidt, Julia Gastinger, Sebastien Nicolas and Anett Schuelke
NEC Laboratories Europe GmbH, Germany
- P4120 Noisy Importance Sampling Actor-Critic: An Off-Policy Actor-Critic With Experience Replay [#21687]**
Norman Tasfi and Miriam Capretz
University Of Western Ontario, Canada
- P4121 "I'm Sorry Dave, I'm Afraid I Can't Do That" Deep Q-Learning from Forbidden Actions [#21722]**
Mathieu Seurin, Philippe Preux and Olivier Pietquin
Univ.Lille, CRISAL, CNRS, Inria, France; Google Research - Brain Team, France

Plenary Poster Session I-P22: Clinical applications

Thursday, July 23, 5:45PM-7:45PM, Room: IJCNN Poster Room 2, Chair: Monica Bianchini

- P4301 Cooperative Evolution Multiclass Support Matrix Machines [#21897]**
Razzak Imran
Deakin, Austria
- P4302 A Study of Emergency Department Patient Admittance Predictors [#21425]**
Harish Kumar Manchukonda, Shahram Rahimi, Alexander Sommers, Sean Bozorgzad and Junfeng Ma
Mississippi State University, United States; Potentia Analytics Inc., United States

- P4303 A cascaded step-temporal attention network for ECG arrhythmia classification [#21157]**
 Yanyun Tao, Yuzhen Zhang, Guoqi Yue, Kaixin Wang and Bin Jiang
 Soochow university, China; The First Affiliated Hospital of Soochow University, China
- P4304 A Modular Framework to Predict Alzheimer's Disease Progression Using Conditional Generative Adversarial Networks [#21720]**
 Shoumik Roychowdhury and Shounak Roychowdhury
 Westwood High School, United States; Texas State University, United States
- P4305 Retinopathy of Prematurity Stage Diagnosis Using Object Detection and Convolutional Neural Networks [#20694]**
 Alexander Ding, Qilei Chen, Yu Cao and Benyuan Liu
 Commonwealth School, United States; University of Massachusetts Lowell, United States
- P4306 Forecast of paroxysmal atrial fibrillation using a deep neural network [#20200]**
 Cedric Gilon, Jean-Marie Gregoire and Hugues Bersini
 Universite Libre de Bruxelles, Belgium
- P4307 Explainable Deep CNNs for MRI-Based Diagnosis of Alzheimer's Disease [#20383]**
 Eduardo Nigri, Nivio Ziviani, Fabio Cappabianco, Augusto Antunes and Adriano Veloso
 CS Dept. UFMG and Kunumi, Brazil; UNIFESP DCT, Brazil; InRad-FMUSP and Kunumi, Brazil; CS Dept. UFMG, Brazil
- P4308 Cascaded Convolutional Neural Networks with Perceptual Loss for Low Dose CT Denoising [#21807]**
 Sepehr Ataei, Javad Alirezaie and Paul Babyn
 Electrical and Computer Engineering, Ryerson University, Canada; Department of Medical Imaging, University of Saskatoon, Canada
- P4309 Adversarial Vulnerability in Doppler-based Human Activity Recognition [#21013]**
 Zhaoyuan Yang, Yang Zhao and Weizhong Yan
 GE Research, United States
- P4310 Myocardial Infarction Segmentation From Late Gadolinium Enhancement MRI By Neural Networks and Prior Information [#21478]**
 Zhihao Chen, Alain Lalande, Michel Salomon, Thomas Decourselle, Thibaut Pommier, Gilles Perrot and Raphael Couturier
 FEMTO-ST Institute, CNRS UMR 6174, Univ. Bourgogne Franche-Comte, France; ImVia Laboratory, Univ. Bourgogne Franche-Comte / CHU Dijon, France; CASIS Company, France; Cardiology Department, CHU Dijon, France

Session I-R33: Recurrent neural networks

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 1, Chair: Jen-Tzung Chien, Yu-Min Huang

- 8:00PM Recurrent Neural Filters: Learning Independent Bayesian Filtering Steps for Time Series Prediction [#20513]**
 Bryan Lim, Stefan Zohren and Stephen Roberts
 University of Oxford, United Kingdom
- 8:20PM Localisation in Wireless Networks using Deep Bidirectional Recurrent Neural Networks [#21423]**
 David Lynch, Lester Ho, Michael MacDonald and Michael O'Neill
 University College Dublin, Ireland; Nokia Bell Laboratories, Ireland; Nokia Bell Laboratories, United States

- 8:40PM Explicit Linear Dual-Multistep Methods Applied to ZNN Illustrated via Discrete Time-Dependent Linear and Nonlinear Inequalities System Solving [#20007]**
Jinjin Guo, Binbin Qiu, Liangjie Ming and Yunong Zhang
Sun Yat-sen University, China
- 9:00PM Fast k-Fuzzy-Rough Cognitive Networks [#20041]**
Napoles Gonzalo, Goossens Wouter, Moesen Quinten and Mosquera Carlos
Hasselt University, Belgium
- 9:20PM Stochastic Convolutional Recurrent Networks [#20657]**
Jen-Tzung Chien and Yu-Min Huang
National Chiao Tung University, Taiwan
- 9:40PM Problem Solving with Hopfield Networks and Adiabatic Quantum Computing [#21320]**
Christian Bauckhage, Ramses Sanchez and Rafet Sifa
University of Bonn, Germany; Fraunhofer IAIS, Germany

Special Session I-SS25A: Machine Learning and Deep Learning Methods applied to Vision and Robotics

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 2, Chair: Andres Fuster Guillo, Jorge Azorin-Lopez

- 8:00PM Statistical and Geometrical Alignment using Metric Learning in Domain Adaptation [#20174]**
Rakesh Sanodiya, Alwyn Mathew, Jimson Mathew and Matloob Khushi
National Taipei University of Technology, Taipei 10608, Taiwan,, Taiwan; Computer Science and Engineering, Indian Institute of Technology Patna, Patna, Bihar, India, India; School of Computer Science, The University of Sydney, Sydney, Australia, Australia
- 8:20PM Closing the Simulation-to-Reality Gap using Generative Neural Networks: Training Object Detectors for Soccer Robotics in Simulation as a Case Study [#21328]**
Nicolas Cruz and Javier Ruiz-del-Solar
Universidad de Chile, Chile
- 8:40PM Hybridization of Data and Model based Object Detection for Tracking in Flash Lidars [#20668]**
Kruttidipta Samal, Marilyn Wolf and Saibal Mukhopadhyay
Georgia Institute of Technology, United States
- 9:00PM Image Clustering Using a Growing Neural Gas with Forbidden Regions [#21409]**
Jesus Benito-Picazo, Antonio Diaz Ramos, Esteban J. Palomo and Enrique Dominguez
Universidad de Malaga, Spain
- 9:20PM Learning to Infer the Depth Map of a Hand from its Color Image [#20045]**
Vassilis - Clitos Nicodemou, Iason Oikonomidis, Georgios Tzimiropoulos and Antonis Argyros
Computer Science Department University of Crete, Greece; Institute of Computer Science FORTH, Greece; School of Computer Science University of Nottingham, United Kingdom
- 9:40PM Multi-modal Information Extraction and Fusion with Convolutional Neural Networks [#20821]**
Dinesh Kumar and Dharmendra Sharma
University of Canberra, Australia

Special Session I-SS47: Mind, Brain, and Cognitive Algorithms

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 3, Chair: Leonid Perlovsky

8:00PM What You Get is More Than What You See - or Less -- in Models of Human Decision Making [#21323]

Daniel Levine
University of Texas at Arlington, United States

8:20PM A cognitive inspired method for assessing novelty of short-text idea [#21887]

Simona Doboli, Jared Kenworthy, Paul Paulus, Ali Minai and Doboli Alex
Hofstra University, United States; University of Texas Arlington, United States; University of Cincinnati, United States; Stony Brook University, United States

8:40PM Multiple Timescale and Gated Mechanisms for Action and Language Learning in Robotics [#20570]

Wenjie Huang, Junpei Zhong and Angelo Cangelosi
University of Manchester, United Kingdom; Nottingham Trent University, United Kingdom; University of Manchester(UK); AIST-AIRC(Japan)), United Kingdom

9:00PM On the brain-mind visual experiences [#20447]

Tania Re and Giuseppe Vitiello
University of Genoa, Italy; University of Salerno, Italy

9:20PM A Developmental Neuro-Robotics Approach for Boosting the Recognition of Handwritten Digits [#21794]

Alessandro Di Nuovo
Sheffield Hallam University, United Kingdom

9:40PM Automated Deception Detection of Male and Females From Non-Verbal Facial Micro-Gestures [#20265]

Keeley Crockett, James O'Shea and Wasim Khan
Manchester Metropolitan University, United Kingdom; Liverpool John Moores University, United Kingdom

Special Session I-SS16: Neural Network-based Uncertainty Quantification

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 4, Chair: Abbas Khosravi

8:00PM Prediction Error Meta Classification in Semantic Segmentation: Detection via Aggregated Dispersion Measures of Softmax Probabilities [#20849]

Matthias Rottmann, Pascal Colling, Thomas Paul Hack, Robin Chan, Fabian Hueger, Peter Schlicht and Hanno Gottschalk
University of Wuppertal, Germany; University Leipzig, Germany; Volkswagen Group Innovation, Germany

8:20PM Uncertainty Quantification Neural Network from Similarity and Sensitivity [#20031]

H M Dipu Kabir, Abbas Khosravi, Darius Nahavandi and Saeid Nahavandi
Deakin University, Australia

8:40PM Quantifying Uncertainty in Ensembles of Neural Networks using U-Statistics [#21696]

Jordan Schupbach, John Sheppard and Tyler Forrester
Montana State University, United States

9:00PM Machine learning with incomplete datasets using multi-objective optimization models [#21133]

Hadi Akbarzadeh Khorshidi, Michael Kirley and Uwe Aickelin
The University of Melbourne, Australia

9:20PM Temporal Calibrated Regularization for Robust Noisy Label Learning [#20515]

Dongxian Wu, Yisen Wang, Zhuobin Zheng and Shu-Tao Xia
Tsinghua University, China; Shanghai Jiao Tong University, China

9:40PM Region-DH: Region-based Deep Hashing for Multi-Instance Aware Image Retrieval [#20491]

Franck Romuald Fotso Mtope and Bo Wei
Research and Innovation, Cognitive Data System, SARL, Cameroon; Department of Computer and Information Sciences, Northumbria University, United Kingdom

Special Session I-SS34: Deep Learning for Brain-like Computing and Pattern Recognition

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 5, Chair: Guoqiang Zhong

8:00PM EDNet: A Mesoscale Eddy Detection Network with Multi-Modal Data [#20754]

Zhenlin Fan, Guoqiang Zhong, Hongxu Wei and Haitao Li
Ocean University of China, China

8:20PM MetaCGAN: A Novel GAN Model for Generating High Quality and Diversity Images with Few Training Data [#21707]

Ying Ma, Guoqiang Zhong, Yanan Wang and Wen Liu
Ocean University of China, China; Qingdao Yisa Data Technology Company, China

8:40PM Underwater object detection using Invert Multi-Class Adaboost with deep learning [#21035]

Chen Long, Liu Zhihua, Tong Lei, Jiang Zheheng, Wang Shengke, Dong Junyu and Zhou Huiyu
University of Leicester, United Kingdom; Ocean University of China, China

9:00PM Fully Convolutional Network for Removing DCT Artefacts From Images [#21604]

Patryk Najgebauer, Rafal Scherer and Leszek Rutkowski
Czestochowa University of Technology, Poland; University of Social Sciences, Poland

9:20PM Application of PSO-GA and CGA in Sea-Clutter Doppler Spectrum Modeling [#21018]

Shubin Zhang, Tingting Ji, Wenyuan Wang and Jinpeng Zhang
Ocean University of China, China; China Research Institute of Radiowave Propagation, China

9:40PM Multi-Receptive Atrous Convolutional Network for Semantic Segmentation [#20275]

Mingyang Zhong, Brijesh Verma and Joseph Affum
Central Queensland University, Australia; Australian Road Research Board, Australia

Session I-R34: Deep Learning III

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 6, Chair: Guoqiang Zhong

8:00PM Anomaly Detection Based on Unsupervised Disentangled Representation Learning in Combination with Manifold Learning [#20702]

Xiaoyan Li, Iluju Kiringa, Tet Yeap, Xiaodan Zhu and Yifeng Li
University of Ottawa, Canada; Queen's University, Canada; Brock University, Canada

8:20PM One-step Predictive Encoder - Gaussian Segment Model for Time Series Anomaly Detection [#21480]

Jiachen Zhao, Yongling Li, Haibo He and Fang Deng
Beijing Institute of Technology, China; Beijing Jiaotong University, China; University of Rhode Island, United States

8:40PM Fisher Discriminant Triplet and Contrastive Losses for Training Siamese Networks [#20386]

Benyamin Ghogh, Milad Sikaroudi, Sobhan Shafiei, H.R. Tizhoosh, Fakhri Karray and Mark Crowley

Department of Electrical and Computer Engineering, University of Waterloo, Waterloo, ON, Canada, Canada; Kimia Lab, University of Waterloo, Waterloo, ON, Canada, Canada

9:00PM Learned Weight Sharing for Deep Multi-Task Learning by Natural Evolution Strategy and Stochastic Gradient Descent [#20418]

Jonas Prellberg and Oliver Kramer
University of Oldenburg, Germany

9:20PM Multi-modal cyberbullying detection on social networks [#21132]

Kaige Wang, Qingyu Xiong, Chao Wu, Min Gao and Yang Yu
School of Big Data and Software Engineering, Chongqing University, Chongqing, China, 401331, China

9:40PM TAM-Net: Temporal Enhanced Appearance-to-Motion Generative Network for Video Anomaly Detection [#20370]

Xiangli Ji, Bairong Li and Yuesheng Zhu
Peking university, China; Peking University, China

Session I-R35:

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Room 7, Chair: Krzysztof Slot

8:00PM Two-stage Automatic Image Annotation Based on Latent Semantic Scene Classification [#20709]

Hongwei Ge, Kai Zhang, Yaqing Hou, Chao Yu, Mingde Zhao, Zhen Wang and Liang Sun
Dalian University of Technology, China; McGill University, Canada

8:20PM Selective Feature Network for Object Detection [#21755]

Yuning Cui, Dianxi Shi, Yongjun Zhang and Qianchong Sun
National University of Defense Technology, China; National Innovation Institute of Defense Technology, China

8:40PM Continuous Emotion Recognition via Deep Convolutional Autoencoder and Support Vector Regressor [#21351]

Sevegni Odilon Clement Allognon, Alessandro Lameiras Koerich and Alceu de Souza Britto Jr.
Ecole de Technologie Superieure, Canada; Pontifical Catholic University of Parana, Brazil

9:00PM Facial Appearance Modifications using SKPCA-Derived Features Extracted from Convolutional Autoencoder's Latent Space [#21168]

Krzysztof Adamiak, Pawel Kapusta and Krzysztof Slot
Lodz University of Technology, Poland

9:20PM Adversarial Perturbations Fool Deepfake Detectors [#21652]

Apurva Gandhi and Shomik Jain
University of Southern California, United States

9:40PM Identity-Preserving Realistic Talking Face Generation [#21724]

Sanjana Sinha, Sandika Biswas and Brojeshwar Bhowmick
TCS Research and Innovation, India

Plenary Poster Session I-P23: Semi-supervised learning, Online Learning, Probabilistic Methods
Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Poster Room 1, Chair: Fabricio Breve

- P4501 Laplacian-based Semi-supervised Multi-Label Regression [#20744]**
Vivien Kraus, Khalid Benabdeslem and Bruno Canitia
Universite Lyon 1, France; Lizeo Group, France
- P4502 A Co-Training-based Algorithm Using Confidence Values to Select Instances [#20785]**
Karlhane M. O. Vale, Flavius L. Gorgonio, Yago N. Araujo, Arthur C. Gorgonio and Anne Magaly de P. Canuto
Federal University of Rio Grande do Norte, Brazil
- P4503 Two Novel Approaches for Automatic Labelling in Semi-Supervised Methods [#21410]**
Cephas Barreto, Anne Canuto, Joao Xavier-Junior, Arthur Gorgonio, Douglas Lima and Ranna Costa
Federal University of Rio Grande do Norte (UFRN), Brazil
- P4504 Neighborhood-Aware Attention Network for Semi-supervised Face Recognition [#20121]**
Qi Zhang, Zhen Lei and Stan Z. Li
CBSR & NLPR, Institute of Automation, Chinese Academy of Sciences, China
- P4505 Towards Precise End-to-end Semi-Supervised Human Head Detection Network [#21327]**
Rongchun Li, Junjie Zhang, Yuntao Liu and Yong Dou
National Laboratory for Parallel and Distributed Processing, National University of Defense Technology, China
- P4506 Word sense disambiguation: an evaluation study of semi-supervised approaches with word embeddings [#21638]**
Samuel Sousa, Evangelos Milios and Lilian Berton
Universidade Federal de Sao Paulo, Brazil; Dalhousie University, Canada
- P4507 Mixing Up Real Samples and Adversarial Samples for Semi-Supervised Learning [#20822]**
Yun Ma, Xudong Mao, Yangbin Chen and Qing Li
The Hong Kong Polytechnic University, Hong Kong; City University of Hong Kong, Hong Kong
- P4508 Robust Semi-Supervised Semantic Segmentation Based on Self-Attention and Spectral Normalization [#20186]**
Jia Zhang, Zhixin Li, Canlong Zhang and Huifang Ma
Guangxi Normal University, China; Northwest Normal University, China
- P4509 Visually Impaired Aid using Convolutional Neural Networks, Transfer Learning, and Particle Competition and Cooperation [#20944]**
Fabricio Breve and Carlos Norberto Fischer
Sao Paulo State University, Brazil
- P4510 Bilinear Semi-Tensor Product Attention (BSTPA) model for visual question answering [#20183]**
Zongwen Bai, Ying Li, Meili Zhou, Di Li, Dong Wang, Dawid Połap and Marcin Woźniak
School of Computer Science, Northwestern Polytechnical University, Xi'an 710072, CHINA; Shaanxi Key Laboratory of Intelligent Processing for Big Energy Data, Yan'an 716000, CHINA, China; School of Computer Science, Northwestern Polytechnical University, Xi'an 710072, CHINA, China; School of Physics and Electronic Information, Yan'an University, Yan'an 716000, CHINA, China; Faculty of Applied Mathematics, Silesian University of Technology, Kaszubska 23, 44-100 Gliwice, POLAND, Poland
- P4511 ZF Model Efficiency for Automatic Hand Detection in Vehicles [#21046]**
Sofiane Medjram and Saida Bouakaz
LISTIC-Lab, Savoie Mont Blanc University, France; Claude Bernard Lyon 1 University, France

- P4512 AUC Estimation and Concept Drift Detection for Imbalanced Data Streams with Multiple Classes [#20423]**
Shuo Wang and Leandro Minku
University of Birmingham, United Kingdom
- P4513 On Ensemble Techniques for Data Stream Regression [#21786]**
Heitor Murilo Gomes, Jacob Montiel, Saulo Martiello Mastelini, Bernhard Pfahringer and Albert Bifet
University of Waikato, New Zealand; University of Sao Paulo, Brazil
- P4514 Automatic hyperparameter tuning in on-line learning: Classic Momentum and ADAM [#20044]**
Pawel Wawrzynski, Pawel Zawistowski and Lukasz Lepak
Warsaw University of Technology, Poland
- P4515 GPU-based State Adaptive Random Forest for Evolving Data Stream [#20268]**
Ocean Wu, Yun Sing Koh and Giovanni Russello
The University of Auckland, New Zealand
- P4516 Prediction with Expert Advice for Value at Risk [#20337]**
Raisa Dzhamtyrova and Yuri Kalnishkan
Royal Holloway, University of London, United Kingdom
- P4517 Robust Sparse Channel Estimation Based on Mixture Maximum Correntropy Criterion [#20282]**
Lu Mingfei, Xing Lei, Zheng Nanning and Chen Badong
Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University, China
- P4518 One-Class Support Tensor Machines with Bounded Hinge Loss Function for Anomaly Detection [#21694]**
Razzak Imran and Tariq Khan
Deakin, Australia
- P4519 Towards Online Discovery of Data-Aware Declarative Process Models from Event Streams [#21512]**
Nicolo' Navarin, Matteo Cambiaso, Andrea Burattin, Fabrizio Maria Maggi, Luca Oneto and Alessandro Sperduti
University of Padua, Italy; University of Genoa, Italy; Technical University of Denmark, Denmark; Free University of Bozen-Bolzano, Italy

Plenary Poster Session I-P24:

Thursday, July 23, 8:00PM-10:00PM, Room: IJCNN Poster Room 2, Chair: Tolga Ensari

- P4701 Persona aware Response Generation with Emotions [#21428]**
Mauajama Firdaus, Naveen Thangavelu, Asif Ekbal and Pushpak Bhattacharyya
IIT Patna, India
- P4702 Why Not? Tell us the Reason for Writer Dissimilarity [#20911]**
Chandranath Adak, Bidyut B. Chaudhuri, Chin-Teng Lin and Michael Blumenstein
JIS Institute of Advanced Studies & Research, India; Techno India University, India; University of Technology Sydney, Australia
- P4703 Dynamic Network Link Prediction by Learning Effective Subgraphs using CNN-LSTM [#21366]**
Kalyani Selvarajah, Kumaran Ragnathan, Ziad Kobti and Mehdi Kargar
University of Windsor, Canada; Ryerson University, Canada

- P4704 Multi-paragraph Reading Comprehension with Token-level Dynamic Reader and Hybrid Verifier [#20242]**
Yilin Dai, Qian Ji, Gongshen Liu and Bo Su
Shanghai Jiao Tong University, China
- P4705 Modeling H₂O/Rutile-TiO₂(110) Potential Energy Surfaces with Deep Networks [#20147]**
Stefan Oehmcke, Thomas Teusch, Thorben Petersen, Thorsten Kl"uner and Oliver Kramer
Copenhagen University, Denmark; University of Oldenburg, Germany
- P4706 A Re-Ranking Framework for Knowledge Graph Completion [#20482]**
Zikang Wang, Linjing Li and Dajun Zeng
Chinese Academy of Sciences, China
- P4707 Change Your Singer: A Transfer Learning Generative Adversarial Framework for Song to Song Conversion [#20874]**
Rema Daher, Mohammad Kassem Zein, Julia El Zini, Mariette Awad and Daniel Asmar
American University of Beirut, Lebanon
- P4708 Range-Doppler Detection in Automotive Radar with Deep Learning [#21054]**
Weichong Ng, Guohua Wang, Siddhartha Siddhartha, Zhiping Lin and Bhaskar Jyoti Dutta
Nanyang Technological University, Singapore; Hertzwell, Singapore
- P4709 DSmith: Compiler Fuzzing through Generative Deep Learning Model with Attention [#21185]**
Haoran Xu, Yongjun Wang, Shuhui Fan, Peidai Xie and Aizhi Liu
National University of Defense Technology, China; Institute of War, Academy of Military Sciences, China
- P4710 Learning Single-view Object Reconstruction with Scaling Volume-View Supervision [#20240]**
Zishu Gao, Guodong Yang, En Li and Zize Liang
Institute of Automation, Chinese Academy of Sciences, China
- P4711 CCCNet: An Attention Based Deep Learning Framework for Categorized Counting of Crowd in Different Body States [#21769]**
Sarkar Snigdha Sarathi Das, Syed Md. Mukit Rashid and Mohammed Eunos Ali
Bangladesh University of Engineering and Technology, Bangladesh
- P4712 Predicting Human Errors from Gaze and Cursor Movements [#21436]**
Rachid Rhyad Saboundji and Robert Adrian Rill
Eotvos Lorand University, Hungary
- P4713 A Feature Ensemble-based Approach to Malicious Domain Name Identification from Valid DNS Responses [#21144]**
Zhao Chen, Zhang Yongzheng and Wang Yipeng
School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences, China
- P4714 Predicting Brazilian and U.S. Elections with Machine Learning and Social Media Data [#21191]**
Kellyton dos Santos Brito and Paulo Jorge Leitao Adeodato
Universidade Federal de Pernambuco and Universidade Federal Rural de Pernambuco, Brazil; Universidade Federal de Pernambuco, Brazil
- P4715 A Comparative Study of Classifiers for Thumbnail Selection [#21978]**
Kyle Pretorius and Nelishia Pillay
University of Pretoria, South Africa
- P4716 End-to-End Analysis for Text Detection and Recognition in Natural Scene Images [#21393]**
Ahlam Alnefaie, Deepak Gupta, Monowar H Bhuyan, Imran Razzak, Prashanat K Gupta and Mukesh Prasad

University of Technology Sydney, Australia; National Institute of Technology, Arunachal Pradesh, India; Umea University, Sweden; Deakin University, Australia; Amity School of Engineering and Technology, Noida, India

FRIDAY, JULY 24

Session I-R36: Reservoir networks and SOM

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 1, Chair: Pedro Braga, Heitor Medeiros

2:45PM **A Gated Recurrent Unit based Echo State Network [#20660]**

Xinjie Wang, Yaochu Jin and Kuangrong Hao

Engineering Research Center of Digitized Textile and Fashion Technology, Ministry of Education, Shanghai 201620, P. R. China College of Information Sciences and Technology, Donghua University, Shanghai 201620, P. R. China, China; Engineering Research Center of Digitized Textile and Fashion Technology, Ministry of Education, Shanghai 201620, P. R. China College of Information Sciences and Technology, Donghua University, Shanghai 201620, P. R. China Department of Computing, Universi, United Kingdom

3:05PM **Reservoir Computing with Neuro-Memristive Nanowire Networks [#21570]**

Kaiwei Fu, Ruomin Zhu, Alon Loeffler, Joel Hochstetter, Adrian Diaz-Alvarez, Adam Stieg, James Gimzewski, Tomonobu Nakayama and Zdenka Kuncic

University of Sydney, Australia; National Institute for Materials Science, Japan; University of California at Los Angeles, United States

3:25PM **HP-ESN: Echo State Networks Combined with Hodrick-Prescott Filter for Nonlinear Time-Series Prediction [#21788]**

Ziqiang Li and Gouhei Tanaka

The University of Tokyo, Japan

3:45PM **EEG feature learning with Intrinsic Plasticity based Deep Echo State Network [#21960]**

Rahma Fourati, Boudour Ammar, Yaochu Jin and Adel M. Alimi

ReGIM-Lab, university of Sfax, Tunisia; Department of Computer Science University of Surrey, United Kingdom

4:05PM **SoC Kohonen Maps Based on Stochastic Computing [#21334]**

Alejandro Moran, Josep L. Rossello, Miquel Roca and Vincent Canals

University of the Balearic Islands, Spain

4:25PM **Deep Categorization with Semi-Supervised Self-Organizing Maps [#21892]**

Pedro Braga, Heitor Medeiros and Hansenclever Bassani

Universidade Federal de Pernambuco, Brazil

Special Session I-SS18A: Explainable Computational/Artificial Intelligence

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 2, Chair: Julio Valdes

2:45PM **Plausible Counterfactuals: Auditing Deep Learning Classifiers with Realistic Adversarial Examples [#20556]**

Alejandro Barredo-Arrieta and Javier Del Ser

TECNALIA, Basque Research and Technology Alliance (BRTA), Spain; University of the Basque Country (UPV/EHU), Spain

3:05PM **Evaluating Explanations of Convolutional Neural Network Image Classifications [#20106]**

Sumeet Shah and John Sheppard

Johns Hopkins University, United States; Montana State University, United States

3:25PM **Black Box Attacks on Explainable Artificial Intelligence (XAI) methods in Cyber Security [#21162]**

Aditya Kuppa and Nhien-An Le-Khac

University College Dublin, Ireland

3:45PM CIDMP: Completely Interpretable Detection of Malaria Parasite in Red Blood Cells using Lower-dimensional Feature Space [#21888]

Anik Khan, Kishor Datta Gupta, Deepak Venugopal and Nirman Kumar
University of Memphis, United States

4:05PM DeepConsensus: Consensus-based Interpretable Deep Neural Networks with Application to Mortality Prediction [#21764]

Shaeke Salman, Seyedeh Neelufar Payrovnaziri, Xiuwen Liu, Pablo Rengifo-Moreno and Zhe He
Florida State University, United States

4:25PM Locality Guided Neural Networks for Explainable Artificial Intelligence [#20488]

Randy Tan, Naimul Khan and Ling Guan
Ryerson University, Canada

Special Session I-SS55: Extreme Learning Machines (ELM)

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 3, Chair: Guang-Bin Huang

2:45PM Hybrid Gray-Scale and Fuzzy Morphological/Linear Perceptrons Trained By Extreme Learning Machine [#21890]

Peter Sussner, Israel Campiotti and Manuel Alejandro Quispe Torres
University of Campinas, Brazil; NeuralMind, Brazil

3:05PM Graph Convolutional Extreme Learning Machine [#21160]

Zijia Zhang, Yaoming Cai, Wenyin Gong, Xiaobo Liu and Zhihua Cai
China University of Geosciences (Wuhan), China

3:25PM Human Gait Recognition Using Image Entropy Vector With Extreme Learning Machines [#20286]

Muqing Deng, Jili Li, Jiangmin Tian, Xiaoping Lai, Jiuwen Cao and Zhiping Lin
Hangzhou Dianzi University, China; Nanyang Technological University, Singapore

3:45PM Dense Broad Learning System based on Conjugate Gradient [#20307]

Weidong Zou, Yuanqing Xia and Weipeng Cao
Beijing Institute of Technology, China; Shenzhen University, China

4:05PM Self-Adaptive Hybrid Extreme Learning Machine for Heterogeneous Neural Networks [#20417]

Vasileios Christou, Georgios Ntritsos, Alexandros T. Tzallas, Markos G. Tsipouras and Nikolaos Giannakeas
Base R&D, Science & Technology Park of Epirus, University of Ioannina Campus, Ioannina GR45110, Greece Department of Informatics and Telecommunications, School of Informatics and Telecommunications, University of Ioannina, Arta, Greece, Greece; Department of Informatics and Telecommunications, School of Informatics and Telecommunications, University of Ioannina, Arta, Greece Department of Hygiene and Epidemiology, University of Ioannina Medical School, Ioannina, Greece, Greece; Department of Informatics and Telecommunications, School of Informatics and Telecommunications, University of Ioannina, Arta, Greece, Greece; Department of Electrical and Computer Engineering, University of Western Macedonia, Kozani, Greece, Greece

4:25PM Feature Bagging and Extreme Learning Machines: Machine Learning with Severe Memory Constraints [#20588]

Kallin Khan, Edward Ratner, Robert Ludwig and Amaury Lendasse
Edammo Inc, United States; University of Houston, United States

Special Session I-SS26: Neuromorphic Sensing, Processing and Applications

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 4, Chair: John Soraghan

- 2:45PM Deep Convolutional Spiking Neural Network Based Hand Gesture Recognition [#21221]**
Weijie Ke, Yannan Xing, Gaetano Caterina, Lykourgos Petropoulakis and John Soraghan
University of Strathclyde, United Kingdom
- 3:05PM On the automatic calibration of fully analogical spiking neuromorphic chips [#21127]**
Daniele M. Papetti, Simone Spolaor, Daniela Besozzi, Paolo Cazzaniga, Marco Antoniotti and Marco S. Nobile
University of Milano-Bicocca, Italy; University of Bergamo, Italy; Eindhoven University of Technology, Netherlands
- 3:25PM The Importance of Balanced Data Sets: Analyzing a Vehicle Trajectory Prediction Model based on Neural Networks and Distributed Representations [#20331]**
Florian Mirus, Terrence C. Stewart and Jorg Conradt
BMW AG, Germany; Applied Brain Research Inc., Canada; KTH Royal Institute of Technology, Sweden
- 3:45PM Multivariate Time Series Classification Using Spiking Neural Networks [#20947]**
Haowen Fang, Amar Shrestha and Qiu Qinru
Syracuse University, United States
- 4:05PM Modified Capsule Neural Network (Mod-CapsNet) for Indoor Home Scene Recognition [#20262]**
Amlan Basu, Keerati Kaewrak, Lykourgos Petropoulakis, Gaetano Di Caterina and John Soraghan
University of Strathclyde, Glasgow, United Kingdom
- 4:25PM SpikeSEG: Spiking Segmentation via STDP Saliency Mapping [#21790]**
Paul Kirkland, John Soraghan, Gaetano Di Caterina and George Matich
University of Strathclyde, United Kingdom; Leonardo, United Kingdom

Session I-R37:

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 5, Chair: Siyuan Chen

- 2:45PM Multi-agent system for dynamic scheduling [#21271]**
Bernardo Firme, Guilherme Lopes, Miguel Sousa Esteves Martins, Tiago Coito, Joaquim Viegas, Joao Miguel Costa Sousa, Joao Carlos Prata Reis, Joao Figueiredo and Susana Vieira
IDMEC, Insitituto Superior Tecnico, Universidade de Lisboa, Portugal; Insitituto Superior Tecnico, Universidade de Lisboa, Portugal; Department of Physics, Universidade de Evora, Portugal
- 3:05PM Multimodal Event-based Task Load Estimation from Wearables [#20973]**
Siyuan Chen and Julien Epps
UNSW, Australia; UNSW & CSIRO, Australia
- 3:25PM GISNet: Graph-Based Information Sharing Network For Vehicle Trajectory Prediction [#20602]**
Ziyi Zhao, Haowen Fang, Zhao Jin and Qinru Qiu
Syracuse University, United States
- 3:45PM Deep Ensemble Art Style Recognition [#21205]**
Orfeas Menis - Mastromichalakis, Natasa Sofou and Giorgos Stamou
National Technical University of Athens, Greece

Session I-R38: On-line learning and mixed topics

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 6, Chair: Francisco Bellas

2:45PM Dropout Probability Estimation in Convolutional Neural Networks by the Enhanced Bat Algorithm [#21919]

Nebojsa Bacanin, Eva Tuba, Timea Bezdán, Ivana Strumberger, Raka Jovanovic and Milan Tuba

Singidunum University, Serbia and Montenegro; Hamad bin Khalifa University, Qatar

3:05PM Neural Network based Explicit Mixture Models and Expectation-maximization based Learning [#20222]

Dong Liu, Minh Vu, Saikat Chatterjee and Lars K. Rasmussen

KTH Royal Institute of Technology, Sweden

Session I-R39:

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Room 7, Chair: Cesare Alippi

2:45PM DR-TiST: Disentangled Representation for Time Series Translation Across Application Domains [#21723]

Hiba Arnout, Johanna Bronner, Johannes Kehrler and Thomas Runkler

Siemens AG/ Technical University Of Munich, Germany; Siemens AG, Germany

3:05PM Gated Res2Net for Multivariate Time Series Analysis [#20237]

Chao Yang, Mingxing Jiang, Zhongwen Guo and Yuan Liu

Ocean University of China, China

3:25PM Cluster-based Aggregate Load Forecasting with Deep Neural Networks [#20908]

Andrea Cini, Slobodan Lukovic and Cesare Alippi

Universita' della Svizzera italiana, Switzerland; Politecnico di Milano, Italy

3:45PM Measuring the engagement level in encrypted group conversations by using temporal networks [#21543]

Moshe Cotacallapa, Lilian Berton, Leonardo Ferreira, Marcos Quiles, Liang Zhao, Macau Elbert and Didier Vega-Oliveiros

National Institute of Space Research, Brazil; Federal University of Sao Paulo, Brazil; University of Sao Paulo, Brazil

4:05PM Segmented Pairwise Distance for Time Series with Large Discontinuities [#20350]

Jiabo He, Sarah Erfani, Sudanthi Wijewickrema, Stephen O'Leary and Kotagiri

Ramamohanarao

University of Melbourne, Australia

4:25PM Deep Sequence Labelling Model for Information Extraction in Micro Learning Service [#20701]

Jiayin Lin, Zhexiong Zhou, Geng Sun, Jun Shen, David Pritchard, Tingru Cui, Dongming Xu, Li Li and Ghassan Beydoun

University of Wollongong, Australia; Massachusetts Institute of Technology, United States;

University of Melbourne, Australia; The University of Queensland, Australia; Southwest

University, China; University of Technology Sydney, Australia

Plenary Poster Session I-P25: Deep Learning

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Poster Room 1, Chair: Wei-Chang Yeh

- P4901** [Locality Sensitive Batching for Triplet Networks \[#21343\]](#)
Kyle Martin, Nirmalie Wiratunga and Sadiq Sani
Robert Gordon University, United Kingdom; BT, United Kingdom
- P4902** [Deep Learning for Text Detection and Recognition in Complex Engineering Diagrams \[#21454\]](#)
Laura Jamieson, Carlos Francisco Moreno-Garcia and Eyad Elyan
Robert Gordon University, United Kingdom
- P4903** [Budgeted Subset Selection for Fine-tuning Deep Learning Architectures in Resource-Constrained Applications \[#21695\]](#)
Subhankar Banerjee and Shayok Chakraborty
Florida State University, United States
- P4904** [I didn't mean what I wrote! Exploring Multimodality for Sarcasm Detection \[#21721\]](#)
Suyash Sangwan, Md Shad Akhtar, Pranati Behera and Asif Ekbal
IIT Patna, India; IIIT Delhi, India
- P4905** [Fast Local Attack: Generating Local Adversarial Examples for Object Detectors \[#21853\]](#)
Quanyu Liao, Xin Wang, Bin Kong, Siwei Lyu, Youbing Yin, Qi Song and Xi Wu
Chengdu University of Information Technology, China; CuraCloud Corp, United States; SUNY Albany, United States
- P4906** [Maximum a Posteriori on a Submanifold: a General Image Restoration Method with GAN \[#21872\]](#)
Fangzhou Luo and Xiaolin Wu
McMaster University, Canada
- P4907** [Recurrent Neural Architecture Search based on Randomness-Enhanced Tabu Algorithm \[#20625\]](#)
Kai Hu, Shuo Tian, Shasha Guo, Nan Li, Li Luo and Lei Wang
National University of Defense Technology, Changsha, China, China
- P4908** [SkipConv: Skip Convolution for Computationally Efficient Deep CNNs \[#20080\]](#)
Pravendra Singh and Vinay P. Namboodiri
Indian Institute of Technology Kanpur, India
- P4909** [MRobust: A Method for Robustness against Adversarial Attacks on Deep Neural Networks \[#20659\]](#)
Yi-Ling Liu and Alessio Lomuscio
Imperial College London, Great Britain
- P4910** [Question Answering over Knowledge Base using Language Model Embeddings \[#21524\]](#)
Sai Sharath Japa and Banafsheh Rekabdar
Southern Illinois University, Carbondale, United States
- P4911** [IO-aware Factorization Machine for User Response Prediction \[#20484\]](#)
Zhenhao Hu, Chao Peng, Cheng He and Haibin Cai
East China Normal University, China
- P4912** [Mutual Information Maximization in Graph Neural Networks \[#20616\]](#)
Xinhan Di, Pengqian Yu, Rui Bu and Mingchao Sun
Technique Center, Ihome Corporation, China; IBM Research, Singapore; Alibaba Inc., China; Shandong University, China

- P4913 Diversity in Neural Architecture Search [#20539]**
Wenzheng Hu, Mingyang Li, Changhe Yuan, Changshui Zhang and Jianqiang Wang
Tsinghua University, China; City University New York Queens College, United States
- P4914 Assessing the Reliability of Visual Explanations of Deep Models with Adversarial Perturbations [#20426]**
Dan Valle, Tiago Pimentel and Adriano Veloso
Wildlife Studios, Brazil; UFMG, Brazil
- P4915 Offshore Oil Slicks Detection From SAR Images Through The Mask-RCNN Deep Learning Model [#21575]**
Emna Amri, Alexandre Benoit, Bolon Bolon, Veronique Migebielle, Bruno Conche and Georges Oppenheim
LISTIC laboratory, USMB, Total Company, France; LISTIC laboratory, USMB, France; Total company, France; University of Paris-Est, France
- P4916 Generating High-Fidelity Images with Disentangled Adversarial VAEs and Structure-Aware Loss [#21683]**
Habibeh Naderi, Behrouz Haji Soleimani and Stan Matwin
Dalhousie University, Canada
- P4917 Transformer Decoder Based Reinforcement Learning Approach for Conversational Response Generation [#21758]**
Farshid Faal, Jia Yuan Yu and Ketra Schmitt
Concordia University, Canada
- P4918 NASABN: A Neural Architecture Search Framework for Attention-Based Networks [#20308]**
Kun Jing, Jungang Xu and Hui Xu
University of Chinese Academy of Sciences, China; Zugeng Technology, China
- P4919 The benefits of synthetic data for action categorization [#20647]**
Mohamad Ballout, Mohammad Tuqan, Daniel Asmar, Elie Shammam and George Sakr
American University of Beirut, Lebanon; University Saint-Joseph of Beirut, Lebanon
- P4920 Improving k-Means Clustering Performance with Disentangled Internal Representations [#20999]**
Abien Fred Agarap and Arnulfo Azcarraga
De La Salle University, Philippines

Plenary Poster Session I-P26: Neurocognitive, visual and auditory systems

Friday, July 24, 2:45PM-4:45PM, Room: IJCNN Poster Room 2, Chair: Ashraf Abdelbar

- P5101 PsychFM: Predicting your next gamble [#21460]**
Prakash Rajan and Krishna Miyapuram
Indian Institute of Technology, Gandhinagar, India
- P5102 Classifying Oscillatory Signatures of Expert vs NonExpert Meditators [#20810]**
Pankaj Pandey and Krishna Prasad Miyapuram
Indian Institute of Technology Gandhinagar, India
- P5103 Working-memory prefrontal model for cognitive flexibility in task-switching and selection [#21649]**
Julien Abrossimoff, Alexandre Pitti and Philippe Gaussier
ETIS UMR 8051 CY University, ENSEA, CNRS, France

- P5104 A unified framework for the application and evaluation of different methods for neural parameter optimization [#21377]**
Mate Mohacsi, Mark Patrik Torok, Sara Saray and Szabolcs Kali
Institute of Experimental Medicine Faculty of Information Technology and Bionics, Pazmany Peter Catholic University, Hungary; Institute of Experimental Medicine, Hungary
- P5105 Towards Personalized Aesthetic Image Caption [#21226]**
Kun Xiong, Liu Jiang, Xuan Dang, Guolong Wang, Wenwen Ye and Zheng Qin
Tsinghua University, China
- P5106 Augmented Behavioral Cloning from Observation [#21001]**
Juarez Monteiro, Nathan Gavenski, Roger Granada, Felipe Meneguzzi and Rodrigo Barros
Pontifical Catholic University of Rio Grande do Sul, Brazil
- P5107 Brain Melody Informatics: Analysing Effects of Music on Brainwave Patterns [#20583]**
Jessica Sharmin Rahman, Tom Gedeon, Sabrina Caldwell and Richard Jones
The Australian National University, Australia
- P5108 Parallel Knowledge Transfer in Multi-Agent Reinforcement Learning [#21477]**
Yongyuan Liang and Bangwei Li
Carnegie Mellon University, United States; Sun Yat-sen University, China
- P5109 Weakly Supervised Object Localization using Self-Paced Pyramid Adversarial Learning [#20357]**
Fucheng Pan, BeiLei Bian, BinXu Wang, YuePing Yang and XiaoMing Ju
East China Normal University, China; NingBo Electric Power Company, China
- P5110 A Novel Strategy for Multi-Objective Tracking Framework based on Semi-online Mechanism [#20855]**
Jin Yanming, Liu Longjun, Zhang Yizhuo, Sun Hongbin and Zheng Nanning
College of Artificial Intelligence, Xi'an Jiaotong University, China
- P5111 SPSN: Seed Point Selection Network in Point Cloud Instance Segmentation [#21806]**
Sun Fei, Xu Yangjie and Sun Weidong
Shenzhen Institutes of Advanced Technology, CAS, China; University of Defense Technology, China
- P5112 pcIRM: Complex Ideal Ratio Masking for Speaker-Independent Monaural Source Separation with Utterance Permutation Invariant Training [#20732]**
Zhang Wen, Li Xiaoyong, Zhou Aolong, Ren Kaijun and Song Junqiang
National University of Defense Technology, China
- P5113 Deep Neural Network Driven Binaural Audio Visual Speech Separation [#21981]**
Mandar Gogate, Kia Dashtipour, Peter Bell and Amir Hussain
Edinburgh Napier University, United Kingdom; University of Edinburgh, United Kingdom
- P5114 Synthetic Sensor Data for Human Activity Recognition [#21545]**
Fayez Alharbi, Jamie A Ward and Lahcen Ouarbya
Student, United Kingdom; Lecturer, United Kingdom
- P5115 Conditioning Autoencoder Latent Spaces for Real-Time Timbre Interpolation and Synthesis [#20664]**
Joseph Colonel and Sam Keene
Queen Mary University of London, United Kingdom; The Cooper Union for the Advancement of Science and Art, United States

Session I-R40: Spiking Neural Networks

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 1, Chair: Maryam Parsa, Catherine Schuman

- 5:00PM Self-regulated Learning Algorithm for Distributed Coding Based Spiking Neural Classifier [#20877]**
Pranav Machingal, Mohammed Thousif, Shirin Dora and Suresh Sundaram
Indian Institute of Science, India; Ulster University, United Kingdom
- 5:20PM Learning from Sparse and Delayed Rewards with a Multilayer Spiking Neural Network [#20867]**
Sergio Chevtchenko and Teresa Ludermir
UFPE, Brazil
- 5:40PM A Reservoir-based Convolutional Spiking Neural Network for Gesture Recognition from DVS Input [#21114]**
Arun M. George, Dighanchal Banerjee, Sounak Dey, Arijit Mukherjee and Purushothaman Balamurali
TCS Research & Innovation, India
- 6:00PM STDP Training of Hierarchical Spike Timing Model of Visual Information Processing [#21511]**
Petia Koprinkova-Hristova, Simona Nedelcheva, Nadejda Bocheva, Radoslava Krалеva, Velin Krалev, Miroslava Stefanova and Bilyana Genova
IICT - BAS, Bulgaria; INB - BAS, Bulgaria; SWU, Bulgaria
- 6:20PM Resilience and Robustness of Spiking Neural Networks for Neuromorphic Systems [#20601]**
Catherine Schuman, J. Parker Mitchell, J. Travis Johnston, Maryam Parsa, Bill Kay, Prasanna Date and Robert Patton
Oak Ridge National Laboratory, United States; Purdue University, United States
- 6:40PM Hyperparameter Optimization in Binary Communication Networks for Neuromorphic Deployment [#20980]**
Maryam Parsa, Catherine D. Schuman, Prasanna Date, Derek C. Rose, Bill Kay, J. Parker Mitchell, Steven R. Young, Ryan Dellana, William Severa, Thomas E. Potok and Kaushik Roy
Purdue University, United States; Oak Ridge National Laboratory, United States; Sandia National Laboratories, United States

Special Session I-SS18B: Explainable Computational/Artificial Intelligence

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 2, Chair: Julio Valdes

- 5:00PM Ontology-based Interpretable Machine Learning for Textual Data [#20461]**
Lai Phung, Phan NhatHai, Hu Han, Badeti Anuja, Newman David and Dou Dejing
New Jersey Institute of Technology, United States; Wells Fargo Bank, United States; University of Oregon, United States
- 5:20PM EXPLAN: Explaining Black-box Classifiers using Adaptive Neighborhood Generation [#20681]**
Peyman Rasouli and Ingrid Chieh Yu
Department of Informatics, University of Oslo, Norway
- 5:40PM Interpreting Deep Models through the Lens of Data [#21318]**
Dominique Mercier, Shoaib Ahmed Siddiqui, Andreas Dengel and Sheraz Ahmed
German Research Center for Artificial Intelligence - DFKI, Germany; German Research Center for Artificial Intelligence (DFKI), Germany

- 6:00PM Conceptual Explanations of Neural Network Prediction for Time Series [#21331]**
 Ferdinand Kuesters, Peter Schichtel, Sheraz Ahmed and Andreas Dengel
 IAV GmbH, Germany; German Research Center for Artificial Intelligence (DFKI), Germany
- 6:20PM Reliable Local Explanations for Machine Listening [#21620]**
 Saumitra Mishra, Emmanouil Benetos, Bob L.T. Sturm and Simon Dixon
 The Alan Turing Institute, United Kingdom; Queen Mary University of London, United Kingdom; KTH Royal Institute of Technology, Sweden
- 6:40PM Interpreting response to TMZ therapy in murine GL261 glioblastoma by combining Radiomics, Convex-NMF and feature selection in MRI/MRSI data analysis [#21077]**
 Luis Miguel Nunez, Margarita Julia-Sape, Enrique Romero, Carles Arus, Alfredo Vellido and Ana Paula Candiota
 Centro de Investigacion Biomedica en Red, Bioingenieria, Biomateriales y Nanomedicina (CIBER-BBN), Spain; CIBER-BBN, Universitat Autonoma de Barcelona, Institut de Biotecnologia i Biomedicina, Spain; IDEAI Research Center, Universitat Politecnica de Catalunya, Spain; Universitat Autonoma de Barcelona, CIBER-BBN, Institut de Biotecnologia i Biomedicina, Spain

Special Session I-SS52: Methods and Applications of Deep Reinforcement Learning to Autonomous Systems

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 3, Chair: Thanh Thi Nguyen

- 5:00PM Beyond-Visual-Range Air Combat Tactics Auto-Generation by Reinforcement Learning [#20179]**
 Haiyin Piao, Zhixiao Sun, Guanglei Meng, Hechang Chen, Bohao Qu, Kuijun Lang, Yang Sun, Shengqi Yang and Xuanqi Peng
 Northwestern Polytechnical University, China; Shenyang Aerospace University, China; Jilin University, China; SADRI Institute, China
- 5:20PM Accelerating Reinforcement Learning for Reaching Using Continuous Curriculum Learning [#20724]**
 Luo Sha, Kasaei Hamidreza and Schomaker Lambert
 University of Groningen, Netherlands
- 5:40PM Multi-Agent Reinforcement Learning for Problems with Combined Individual and Team Reward [#21258]**
 Hassam ullah Sheikh and Ladislau Boloni
 University of Central Florida, United States
- 6:00PM Transfer Learning based Task-oriented Dialogue Policy for Multiple Domains using Hierarchical Reinforcement Learning [#21261]**
 Tulika Saha, Sriparna Saha and Pushpak Bhattacharyya
 IIT Patna, India
- 6:20PM Robust Reinforcement Learning-based Autonomous Driving Agent for Simulation and Real World [#21330]**
 Almasi Peter, Moni Robert and Gyires-Toth Balint
 Budapest University of Technology and Economics, Hungary
- 6:40PM Multi-Agent Connected Autonomous Driving using Deep Reinforcement Learning [#20554]**
 Praveen Palanisamy
 Microsoft, United States

Special Session I-SS30: Robustness and Trustworthiness in Deep Learning

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 4, Chair: Ghulam Rasool

- 5:00PM Detecting Adversarial Audio via Activation Quantization Error [#21458]**
Heng Liu and Gregory Ditzler
University of Arizona, United States
- 5:20PM Controlled False Negative Reduction of Minority Classes in Semantic Segmentation [#20856]**
Robin Chan, Matthias Rottmann, Fabian Hueger, Peter Schlicht and Hanno Gottschalk
University of Wuppertal, Germany; Volkswagen Group Innovation, Germany
- 5:40PM NeuroAttack: Undermining Spiking Neural Networks Security through Externally Triggered Bit-Flips [#21626]**
Valerio Venceslai, Alberto Marchisio, Ihsen Alouani, Maurizio Martina and Muhammad Shafique
Politecnico di Torino, Italy; TU Wien, Austria; Polytechnic University Hauts-de-France, France
- 6:00PM Bayesian Neural Networks Uncertainty Quantification with Cubature Rules [#20919]**
Peng Wang, Renke He, Qibin Zhang, Jikai Wang, Lyudmila Mihaylova and Nidhal C. Bouaynaya
The University of Sheffield, United Kingdom; Air Force Engineering University, China; The 32nd Research Institute of CETC, China; University of Science and Technology of China, China; Rowan University, United Kingdom
- 6:20PM Enhancing Resilience of Deep Learning Networks By Means of Transferable Adversaries [#21250]**
Moritz Vinzent Seiler, Heike Trautmann and Pascal Kerschke
University of Muenster, Germany
- 6:40PM Evaluating Speech Enhancement Methods through Deep Speech Recognition [#21286]**
Shamoon Siddiqui, Ghulam Rasool, Ravi Ramachandran and Nidhal Bouaynaya
Rowan University, United States

Session I-R41:

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 5, Chair: Weizhong Yan

- 5:00PM A Comparison of GANs-Based Approaches for Combustor System Fault Detection [#20884]**
Rui Xu and Weizhong Yan
GE Research, United States
- 5:20PM A neural classifier to evaluate the role of image resolution in the perception of color differences [#21572]**
Beatrice Lazzerini and Francesco Pistolesi
University of Pisa, Italy
- 5:40PM Multiple Object Detection of Workpieces Based on Fusion of Deep Learning and Image Processing* [#20128]**
Yi Lei, Xifan Yao, Wocheng Chen, Junming Zhang, Jorn Mehnen and Erfu Yang
School of Mechanical and Automotive Engineering, South China University of Technology, China; Faculty of Engineering, University of Strathclyde, United Kingdom
- 6:00PM Rolling Bearing Fault Diagnosis under Variable Working Conditions Based on Joint Distribution Adaptation and SVM [#20650]**
Li Ming, Sun Zhao-Hui, He Weihui, Qiu Siqi and Liu Bo
Shanghai Jiao Tong University, China
- 6:20PM A self-organizing modular neural network for nonlinear system modeling [#20310]**
Xi Meng, Limin Quan and Junfei Qiao
Beijing University of Technology, China

6:40PM An Innovative Approach of Textile Fabrics Identification from Mobile Images using Computer Vision based on Deep Transfer Learning [#21776]

Antonio Carlos da Silva Barros, Elene Firmeza Ohata, Suane Pires P. da Silva, Jefferson Silva Almeida and Pedro Pedrosa Reboucas Filho
Unilab, Brazil; UFC, Brazil; IFCE, Brazil

Session I-R42: Mixture models

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 6, Chair: Min Gao

5:00PM Multi-label learning for dynamic model type recommendation [#20192]

Mariana A. Souza, Robert Sabourin, George D. C. Cavalcanti and Rafael M. O. Cruz
University of Quebec, Canada; Federal University of Pernambuco, Brazil

5:20PM SAG-VAE: End-to-end Joint Inference of Data Representations and Feature Relations [#21873]

Wang Chen, Deng Chengyuan and Ivanov Vladimir
Rutgers University, United States

5:40PM 3D Point Cloud Feature Explanations Using Gradient-Based Methods [#20721]

Ananya Gupta, Simon Watson and Hujun Yin
The University of Manchester, United Kingdom

6:00PM LSHWE: Improving Similarity-Based Word Embedding with Locality Sensitive Hashing for Cyberbullying Detection [#21731]

Zehua Zhao, Min Gao, Fengji Luo, Yi Zhang and Qingyu Xiong
Chongqing University, China; The University of Sydney, Australia

Session I-R43:

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Room 7, Chair: Ivo Bukovsky

5:00PM FGRec: A Fine-Grained Point-of-Interest Recommendation Framework by Capturing Intrinsic Influences [#20390]

Yijun Su, Jia-Dong Zhang, Xiang Li, Daren Zha, Ji Xiang, Wei Tang and Neng Gao
Institute of Information Engineering, Chinese Academy of Sciences, China; Department of Computer Science, City University of Hong Kong, China; Institute of Information Engineering, Chinese Academy of Sciences, Hong Kong

5:20PM Unified Graph Embedding-Based Anomalous Edge Detection [#20720]

Linshu Ouyang, Yongzheng Zhang and Yipeng Wang
Institute of Information Engineering, Chinese Academy of Sciences, Beijing, China, China

5:40PM User Alignment with Jumping Seed Alignment Information Propagation [#21209]

Xiang Li, Yijun Su, Neng Gao, Ji Xiang and Yuewu Wang
Chinese Academy of Sciences, China

6:00PM Joint Entity Linking and Relation Extraction with Neural Networks for Knowledge Base Population [#20043]

Zhenyu Zhang, Xiaobo Shu, Tingwen Liu, Zheng Fang and Quangang Li
Institute of Information Engineering, Chinese Academy of Sciences, China

6:20PM Similitude Attentive Relation Network for Click-Through Rate Prediction [#21344]

Hangyu Deng, Yulong Wang, Jia Luo and Jinglu Hu
Graduate School of Information, Product and System, Waseda University, China; Graduate School of Information, Product and System, Waseda University, Japan

Plenary Poster Session I-P27: Deep Learning

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Poster Room 1, Chair: Siamak Mehrkanoon

- P5301 Joint Progressive Knowledge Distillation and Unsupervised Domain Adaptation [#21689]**
Le Thanh Nguyen-Meidine, Eric Granger, Madhu Kiran, Jose Dolz and Louis-Antoine Blais-Morin
Ecole de Technologie Superieure, Canada; Genetec Inc, Canada
- P5302 Object Detection by Integrating scene-level semantic information and Border Regression Reinforcement [#20978]**
Yu Quan, Zhixin Li, Canlong Zhang and Huifang Ma
Guangxi Normal University, China; Northwest Normal University, China
- P5303 Latent space decomposition into task-specific and domain-specific subspaces for domain adaptation [#21220]**
Takaya Ueda and Ikuko Nishikawa
Ritsumeikan University, Japan
- P5304 Multi-Partition Feature Alignment Network for Unsupervised Domain Adaptation [#20130]**
Sanatan Sukhija, Srenivas Varadarajan, Narayanan Chatapuram Krishnan and Sujit Rai
Indian Institute of Technology Ropar, India; Intel, India
- P5305 A New Three-stage Curriculum Learning Approach for Deep Network Based Liver Tumor Segmentation [#20798]**
Huiyu Li, Xiabi Liu, Said Boumaraf, Weihua Liu, Xiaopeng Gong and Xiaohong Ma
Beijing Institute of Technology, China; National Cancer Center, China
- P5306 Toward Tag-free Aspect Based Sentiment Analysis: A Multiple Attention Network Approach [#21510]**
Yao Qiang, Xin Li and Dongxiao Zhu
Wayne State University, United States
- P5307 HTMLPhish: Enabling Phishing Web Page Detection by Applying Deep Learning Techniques on HTML Analysis [#21593]**
Chidimma Opara, Bo Wei and Yingke Chen
Teesside University, United Kingdom; Northumbria University, United Kingdom
- P5308 Improving Abstractive Summarization with Iterative Representation [#20419]**
Jinpeng Li, Chuang Zhang, Xiaojun Chen, Yanan Cao and Ruipeng Jia
Institute of Information Engineering, Chinese Academy of Sciences. School of Cyber Security, University of Chinese Academy of Sciences, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences, China
- P5309 Investigating Deep Convolution Conditional GANs for Electrocardiogram Generation [#21433]**
Deepankar Nankani and Rashmi Dutta Baruah
Indian Institute of Technology Guwahati, India, India
- P5310 Multi-STGCnet: A Graph Convolution Based Spatial-Temporal Framework for Subway Passenger Flow Forecasting [#20114]**
Ye Jiexia, Zhao Juanjuan, Xu Chengzhong and Ye Kejiang
Chinese Academy of Sciences, China; University of Macau, Macau
- P5311 Sig-R2ResNet: Residual Network with Signal Processing-refined Residual Mapping, Auto-tuned L1-Regularization with Modified Adam Optimizer for Time Series Classification [#21085]**
Arijit Ukil, Soma Bandyopadhyay and Arpan Pal
Tata Consultancy Services, India

- P5312 Double Attention for Pathology Image Diagnosis Network with Visual Interpretability [#20589]**
Cheng Hao, Wu Kaijie, Ma Kai, Tian Jie, Xu Rui, Gu Chaochen and Guan Xinping
Shanghai Jiao Tong University, China
- P5313 Multitask Adversarial Learning for Chinese Font Style Transfer [#20355]**
Lei Wu, Xi Chen, Lei Meng and Xiangxu Meng
Shandong University, China; National University of Singapore, Singapore
- P5314 PEDDA 376K: A Novel Dataset for Deep-learning Based Porn-detectors [#21761]**
Danilo Coura Moreira, Eanes Torres Pereira and Marco Alvarez
Federal University of Campina Grande (UFCG), Brazil; University of Rhode Island, United States
- P5315 Identifying Optimism and Pessimism in Twitter Messages Using XLNet and Deep Consensus [#20436]**
Ali Alshahrani, Meysam Ghaffari, Kobra Amirizirtol and Xiuwen Liu
Florida State University, United States
- P5316 Code Pointer Network for Binary Function Scope Identification [#21012]**
Van Nguyen, Trung Le, Tue Le, Khanh Nguyen, Olivier De Vel, Paul Montague and Dinh Phung
Monash University, Australia; AI Research Lab, Trusting Social, Australia; Defence Science and Technology Group, Australia
- P5317 Interpretability vs. Complexity: The Friction in Deep Neural Networks [#21553]**
Jose Pereira Amorim, Pedro Henriques Abreu, Mauricio Reyes and Joao Santos
IPO-Porto Research Centre, Portugal; CISUC, Department of Informatics Engineering, Portugal; University of Bern, Switzerland
- P5318 Multiscale Adaptation Fusion Networks for Depth Completion [#21265]**
Yongchi Zhang, Ping Wei, Huan Li and Nanning Zheng
Xi'an Jiaotong University, China
- P5319 Reinforced Sample Re-weighting for Pedestrian Attribute Recognition [#20766]**
Yuan Liu and Zhiping Lin
Nanyang Technological University, Singapore

Plenary Poster Session I-P28: Attention, Memory, Spatial Cognition, computational neuroscience, neurodynamics

Friday, July 24, 5:00PM-7:00PM, Room: IJCNN Poster Room 2, Chair: Ko Sakai

- P5501 Cascade modeling with multihead self-attention [#20579]**
Chaochao Liu, Wenjun Wang, Pengfei Jiao, Xue Chen and Yueheng Sun
Tianjin University, China
- P5502 Object Detection with Extended Attention and Spatial Information [#20816]**
Yingda Guan, Zuochang Ye and Yan Wang
Tsinghua University, China
- P5503 Image Co-segmentation with Multi-Scale Dual-Cross Correlation Network [#20531]**
Yushuo Li, Yuanpei Liu, Xiaopeng Gong and Xiabi Liu
School of Computer Science and Technology, Beijing Institute of Technology, China
- P5504 Multi-Object Tracking Via Multi-Attention [#20532]**
Xianrui Wang, Hefei Ling, Jiazhong Chen and Ping Li
Huazhong University of Science and Technology, China

- P5505 Black-Box Saliency Map Generation Using Bayesian Optimisation [#20651]**
Mamuku Mokuwe, Michael Burke and Anna Sergeevna Bosman
Council for Scientific and Industrial Research, South Africa; University of Edinburgh, Scotland;
University of Pretoria, South Africa
- P5506 Heterogeneous Multi-Modal Sensor Fusion with Hybrid Attention for Exercise Recognition [#21578]**
Anjana Wijekoon, Nirmalie Wiratunga and Kay Cooper
Robert Gordon University, United Kingdom
- P5507 Forecasting Photovoltaic Power Production using a Deep Learning Sequence to Sequence Model with Attention [#20459]**
Elizaveta Kharlova, Daniel May and Petr Musilek
University of Alberta, Canada
- P5508 Attention-based Deep Learning Model for Text Readability Evaluation [#20465]**
Yuxuan Sun, Keying Chen, Lin Sun and Chenlu Hu
Zhejiang University City College, China
- P5509 M3LA: A Novel Approach Based on Encoder-Decoder with Attention Framework for Multi-modal Multi-label Learning [#20715]**
Yinlong Zhu and Yi Zhang
Nanjing University, China
- P5510 A Preliminary Study of Fusion ARTs with Adaptively Information Intensity Attenuation Controlling [#21874]**
Wenxuan Zhu, Yaqing Hou, Qiang Zhang, Hongwei Ge, Xin Yang, Liang Feng and Xinghua Qu
Dalian University of Technology, China; Chongqing University, China; Nanyang Technological University, Singapore
- P5511 CNN Based Perception System for Collision Avoidance in Mobile Robots using Stereo Vision [#21647]**
Edgar Macias-Garcia, Deisy Galeana-Perez and Eduardo Bayro-Corrochano
Centro de Investigacion y Estudios Avanzados del Instituto Politecnico Nacional, Mexico
- P5512 Group-patch based classification and asymptotic predicting imbalanced neuron spikes [#21453]**
Mingli Zhang, Dongsheng Xiao, Timothy H. Murphy, Jean-Baptiste Poline and Alan Evans
Mcgill University, Canada; University of British Columbia, Canada
- P5513 Developing Constrained Neural Units Over Time [#20566]**
Alessandro Betti, Marco Gori, Simone Marullo and Stefano Melacci
University of Siena, Italy
- P5514 n-Oscillator Neural Network based Efficient Cost Function for n-city Traveling Salesman Problem [#21726]**
Shruti Landge, Vivek Saraswat, Srisht Fateh Singh and Udayan Ganguly
Indian Institute of Technology Indore, India; Indian Institute of Technology Bombay, India
- P5515 Analysis of the Dynamic Oscillatory Process of a Neural-type Cell (NTC) and Its Input Voltage Bounds [#20624]**
Zhengqing Wu and Robert Newcomb
Xi'an Jiaotong Univeristy, China; University of Maryland, College Park, United States
- P5516 EEG-based brain-computer interface for alpha speed control of a small robot using the MUSE headband [#21254]**
Cedric Simar, Mathieu Petieau, Anita Cebolla, Axelle Leroy, Gianluca Bontempi and Cheron Guy
Universite Libre de Bruxelles, Belgium

Session I-R44: Spiking and Other NN

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 1, Chair: Krishna Reddy Kesari, Priyadarshini Panda

7:15PM Transfer Learning by Weighting Convolution [#21509]

Stephane Ayache, Ronan Sicre and Thierry Artieres
Qarma/LIS Aix-Marseille University, France; Qarma/LIS Ecole Centrale de Marseille, France

7:35PM Differential Morphological Profile Neural Network for Object Detection in Overhead Imagery [#20195]

Grant Scott, Alex Hurt, Alex Yang, Muhammad Islam, Derek Anderson and Curt Davis
University of Missouri, United States

7:55PM Local Propagation in Constraint-based Neural Networks [#20586]

Giuseppe Marra, Matteo Tiezzi, Stefano Melacci, Alessandro Betti, Marco Maggini and Marco Gori
University of Florence, Italy; University of Siena, Italy

8:15PM Is Spiking Secure? A Comparative Study on the Security Vulnerabilities of Spiking and Deep Neural Networks [#21375]

Alberto Marchisio, Giorgio Nanfa, Faiq Khalid, Muhammad Abdullah Hanif, Maurizio Martina and Muhammad Shafique
TU Wien, Austria; Politecnico di Torino, Italy

8:35PM Robustness to Noisy Synaptic Weights in Spiking Neural Networks [#21645]

Chen Li, Runze Chen, Christoforos Moutafis and Steve Furber
The University of Manchester, Great Britain

8:55PM Enabling Homeostasis using Temporal Decay Mechanisms in Spiking CNNs Trained with Unsupervised Spike Timing Dependent Plasticity [#21813]

Krishna Reddy Kesari, Priyadarshini Panda, Gopalakrishnan Srinivasan and Kaushik Roy
Purdue University, United States; Yale University, United States

Special Session I-SS25B: Machine Learning and Deep Learning Methods applied to Vision and Robotics

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 2, Chair: Andres Fuster Guillo, Jorge Azorin-Lopez

7:15PM Improving Deep Learning Approaches for Human Activity Recognition based on Natural Language Processing of Action Labels [#20301]

Konstantinos Bacharidis and Antonis Argyros
University of Crete, Foundation for Research and Technology - Hellas (FORTH), Greece

7:35PM Developmental Learning of Value Functions in a Motivational System for Cognitive Robotics [#20596]

Alejandro Romero, Francisco Bellas, Abraham Prieto and Richard J. Duro
University of A Coruna, Spain

7:55PM Using a 3D CNN for Rejecting False Positives on Pedestrian Detection [#20730]

Francisco Gomez-Donoso, Edmanuel Cruz, Miguel Cazorla, Stewart Worrall and Eduardo Nebot
University Institute for Computer Research, Spain; Australian Centre for Field Robotics, Australia

8:15PM An Experiment in Morphological Development for Learning ANN Based Controllers [#20835]

Martin Naya-Varela, Andres Faina and Richard J. Duro
Universidade da Coruna, Spain; IT University of Copenhagen, Denmark

8:35PM Event Recognition with Automatic Album Detection based on Sequential Grouping of Confidence Scores and Neural Attention [#21103]

Andrey Savchenko

National Research University Higher School of Economics, Russia

8:55PM Deep Learning Architecture for Group Activity Recognition using Description of Local Motions [#21678]

Luis Felipe Borja-Borja, Jorge Azorin-Lopez, Marcelo Saval-Calvo and Andres Fuster-Guillo
Universidad Central del Ecuador, Ecuador; Universidad de Alicante, Spain

Special Session I-SS54: Online Intelligence and Trust Computation in Large-Scale Dynamic Networks

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 3, Chair: Richard Duro

7:15PM Higher-Order Heterogeneous Graph Convolutional Network Based on Meta-Paths [#20272]

Wanting Zhao, Hao Xu, Wenzhuo Huang and Jinkui Xie

School of Computer Science and Technology, East China Normal University, China

7:35PM Heterogeneous Graph Attention Networks for Early Detection of Rumors on Twitter [#20283]

Qi Huang, Junshuai Yu, Jia Wu and Bin Wang

Institute of Information Engineering, Chinese Academy of Sciences, China; Department of Computing, Macquarie University, Australia; Xiaomi AI Lab, China

7:55PM Text Classification using Triplet Capsule Networks [#20319]

Yujia Wu, Jing Li, Chen Vincent, Jun Chang, Zhiquan Ding and Zhi Wang

School of Computer Science, Wuhan University, China; Pembroke College, Oxford University, Oxford OX1 1DW, UK, United Kingdom; Sichuan Institute of Aerospace Electronic Equipment, China

8:15PM Support Correlation Filters Tracking using Mask Matrix [#20429]

Zhenyang Su, Jing Li, Zhiquan Ding, Tianqi Qin and Yafu Xiao

Wuhan University, China; Sichuan Institute of Aerospace Electronic Equipment, China

8:35PM HeteGraph: A Convolutional Framework for Graph Learning in Recommender Systems [#21014]

Dai Hoang Tran, Abdulwahab Aljubairy, Munazza Zaib, Quan Z. Sheng, Wei Emma Zhang, Nguyen H. Tran and Khoa L.D. Nguyen

Macquarie University, Australia; Department of Computing, Macquarie University Sydney, Australia; The University of Adelaide, Australia; The University of Sydney, Australia; Data61, CSIRO, Australia

8:55PM TRec: Sequential Recommender Based On Latent Item Trend Information [#21716]

Ye Tao, Can Wang, Lina Yao, Weimin Li and Yonghong Yu

Griffith University, Australia; University of New South Wales, Australia; Shanghai University, China; Nanjing University of Posts and Telecommunications, China

Special Session I-SS33A: Computationally Intelligent Methods in Neural Data Processing

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 4, Chair: Mufti Mahmud

7:15PM A 3D Convolutional Neural Network for Emotion Recognition based on EEG Signals [#20801]

Yuxuan Zhao, Jin Yang, Jinlong Lin, Dunshan Yu and Xixin Cao

Institute of Automation, Chinese Academy of Sciences, China; School of Software and Microelectronics, Peking University, China

7:35PM Decoding Speech Evoked Jaw Motion from Non-invasive Neuromagnetic Oscillations [#21823]

Debadatta Dash, Paul Ferrari and Jun Wang
The University of Texas at Austin, United States

7:55PM Time sensitivity and self-organisation in Multi-recurrent Neural Networks. [#20634]

Oluwatamilore Orojo, Jon Tepper, T.M. McGinnity and Mufti Mahmud
Nottingham Trent University, United Kingdom; Perceptronix Ltd, United Kingdom; Intelligent Systems Research Centre, United Kingdom

8:15PM Deep Learning based Prediction of EEG Motor Imagery of Stroke Patients' for Neuro-Rehabilitation Application [#20926]

Haider Raza, Anirban Chowdhury and Saugat Bhattacharyya
School of Computer Science and Electronics Engineering, University of Essex, England;
School of Computing, Eng & Intel. Sys, Ulster University, Northern Ireland

8:35PM A Long Short Term Memory Deep Learning Network for the Classification of Negative Emotions Using EEG Signals [#21520]

Divya Acharya, Arpit Bhardwaj, Shivani Goel, Aditi Sakalle and Harshit Bhardwaj
Ph.D Research Scholar, India; Assistant Professor, India; Professor, India

8:55PM Single-Trial EEG Classification with EEGNet and Neural Structured Learning for Improving BCI Performance [#21246]

Haider Raza, Anirban Chowdhury, Saugat Bhattacharyya and Spyros Samothrakis
School of Computer Science and Electronics Engineering, University of Essex, England;
Computing, Eng & Intel. Sys, Ulster University, Northern Ireland

Session I-R45:

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 5, Chair: Olivier Caelen

7:15PM Legal Document Classification: An Application to Law Area Prediction of Petitions to Public Prosecution Service [#20381]

Mariana Y. Noguti, Eduardo Vellasques and Luiz S. Oliveira
MPPR, DInf/UFPR, Brazil; SAP SE, Germany; DInf/UFPR, Brazil

7:35PM Automated Trading System for Stock Index Using LSTM Neural Networks and Risk Management [#21820]

Thalita Silva, Audeliano Li and Edson Pamplona
Federal University of Itajuba, UNIFEI, Brazil

7:55PM Answering Binary Causal Questions: A Transfer Learning Based Approach [#21008]

Humayun Kayesh, Md. Saiful Islam, Junhu Wang, Shikha Anirban, A.S.M. Kayes and Paul Watters
Griffith University, Australia; La Trobe University, Australia

Session I-R46:

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 6, Chair: David Brown

7:15PM Exploring Clinical Time Series Forecasting with Meta-Features in Variational Recurrent Models [#20914]

Sibghat Ullah, Zhao Xu, Hao Wang, Stefan Menzel, Bernhard Sendhoff and Thomas Back
Leiden Institute of Advanced Computer Science (LIACS), Leiden University, Netherlands; NEC Laboratories Europe GmbH, Germany; Sorbonne University, France; Honda Research Institute Europe GmbH, Germany

- 7:35PM Towards Accurate Predictions and Causal `What-if' Analyses for Planning and Policy-making: A Case Study in Emergency Medical Services Demand [#20463]**
Kasun Bandara, Christoph Bergmeir, Sam Campbell, Debbie Scott and Dan Lubman
Monash University, Australia; Turning Point- Eastern Health Clinical School, Australia
- 7:55PM Enhancing Music Recommendation with Social Media Content: an Attentive Multimodal Autoencoder Approach [#20750]**
Tiancheng Shen, Jia Jia, Yan Li, Hanjie Wang and Bo Chen
Tsinghua University, China; Tecom, China
- 8:15PM Pseudo-Labeling for Small Lesion Detection on Diabetic Retinopathy Images [#20600]**
Qilei Chen, Ping Liu, Jing Ni, Yu Cao, Benyuan Liu and Honggang Zhang
The University of Massachusetts Lowell, United States; Department of Ophthalmology, The Second Xiangya Hospital, Central South University, China; The University of Massachusetts Boston, United States
- 8:35PM MUNet: A Multi-scale U-Net Framework for Medical Image Segmentation [#21242]**
Wentao Zhang, Hao Cheng and Jun Gan
Department of Computer Science and Technology, Nanjing University, China
- 8:55PM A Novel Sleep Stage Classification via Combination of Fast Representation Learning and Semantic-to-Signal Learning [#20018]**
Hongxin Xiang, Ting Zeng and Yun Yang
Yunnan University, China

Session I-R47:

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Room 7, Chair: Alma Alanis

- 7:15PM Forecasting Power Grid States for Regional Energy Markets with Deep Neural Networks [#21243]**
Yujiang He, Janosch Henze and Bernhard Sick
University of Kassel, Germany
- 7:35PM A Data-driven Approach for Forecasting State Level Aggregated Solar Photovoltaic Power Production [#20778]**
Mashud Rana, Ashfaqur Rahman and Jiong Jin
Data61, CSIRO, Australia; Swinburne University of Technology, Australia
- 7:55PM Forecasting Time Series for Electricity Consumption Data Using Dynamic Weight Ensemble Model [#20266]**
Cheng-Hsiang Hu and Yi-Ling Chen
National Taiwan University of Science and Technology, Taiwan
- 8:15PM Temporal Convolutional Neural Networks for Solar Power Forecasting [#20726]**
Yang Lin, Irena Koprinska and Mashud Rana
School of Computer Science, University of Sydney, Sydney, Australia, Australia; Data61, CSIRO, Sydney, Australia, Australia

Plenary Poster Session I-P29: Mixture models, ensemble learning

Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Poster Room 1, Chair: Ivanov Vladimir

- P5701 Diversity-Aware Weighted Majority Vote Classifier for Imbalanced Data [#21278]**
Anil Goyal and Jihed Khiari
NEC Laboratories Europe GmbH, Heidelberg, Germany

- P5702 Learning Dynamic Weights for an Ensemble of Deep Models Applied to Medical Imaging Classification [#20226]**
Andre G. C. Pacheco, Thomas Trappenberg and Renato A. Krohling
Federal University of Espirito Santo, Brazil; Dalhousie University, Canada
- P5703 Solar Power Forecasting Based on Ensemble Learning Methods [#21619]**
Naylene Fraccanabbia, Ramon Gomes da Silva, Matheus Henrique Dal Molin Ribeiro, Sinvaldo Rodrigues Moreno, Leandro dos Santos Coelho and Viviana Cocco Mariani
Pontifical Catholic University of Parana, Brazil; Federal Technological University of Parana and Pontifical Catholic University of Parana, Brazil; Federal University of Parana, Brazil; Pontifical Catholic University of Parana and Federal University of Parana, Brazil
- P5704 Ensemble Methods for Solar Power Forecasting [#21106]**
Zezhou Chen and Irena Koprinska
University of Sydney, Australia
- P5705 Dynamic Multi-criteria Classifier Selection for Illegal Tapping Detection in Oil Pipelines [#20511]**
Victor Henrique Alves Ribeiro, Pedro Henrique Domingues, Paulo Rodrigo Cavalin, Gilberto Reynoso-Meza, Helon Vicente Hultmann Ayala and Luis Fernando Alzuguir Azevedo
Pontifical Catholic University of Parana, Brazil; Pontifical Catholic University of Rio de Janeiro, Brazil; IBM Research, Brazil
- P5706 Bayesian Stress Testing of Models in a Classification Hierarchy [#21180]**
Bashar Awwad Shiekh Hasan and Kate Kelly
Caspian Learning, United Kingdom
- P5707 Learning causal dependencies in large-variate time series [#20654]**
Gianluca Bontempi
MLG, ULB, Universite Libre de Bruxelles, Belgium
- P5708 Stein Variational Gradient Descent with Variance Reduction [#20779]**
Nhan Dam, Trung Le, Viet Huynh and Dinh Phung
Monash University, Australia
- P5709 Learning Filterbanks from Raw Waveform for Accent Classification [#21000]**
Rashmi Kethireddy, Sudarsana Reddy Kadiri and Suryakanth V. Gangashetty
IIIT-Hyderabad, India; Aalto University, Finland
- P5710 HDF: Hybrid Deep Features for Scene Image Representation [#20424]**
Chiranjibi Sitaula, Yong Xiang, Anish Basnet, Sunil Aryal and Xuequan Lu
Deakin University, Australia; Ambition College, Nepal
- P5711 Estimator Vectors: OOV Word Embeddings based on Subword and Context Clue Estimates [#21766]**
Raj Patel and Carlotta Domeniconi
George Mason University, United States
- P5712 Multi-label Feature Selection Method via Maximizing Correlation-based Criterion with Mutation Binary Bat Algorithm [#20063]**
Yuanyuan Tao, Jun Li and Jianhua Xu
Nanjing Normal University, China
- P5713 Modified Grey Wolf Optimizer based Maximum Entropy Clustering Algorithm [#20271]**
Jia Cai, Guanglong Xu and Wenwen Ye
Guangdong University of Finance & Economics, China; Zhaoqing University, China

- P5714 Connection Sparsification and Orbit Stabilization of Dynamic Binary Neural Networks based on Multiobjective Evolutionary Algorithms [#20741]**
Tomoyuki Togawa and Toshimichi Saito
HOSEI University, Japan
- P5715 A Hybrid Paper Recommendation Method by Using Heterogeneous Graph and Metadata [#20748]**
Shi Hui, Ma Wei, Zhang XiaoLiang, Jiang JunYan, Chen ShuJuan and Liu YanBing
Institute of Information Engineering, Chinese Academy of Science; School of Cyber Security, University of Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Science, China; China cybersecurity review technology and certification center, China
- P5716 Neural Network Augmented Intelligent Iterative Learning Control for a Nonlinear System [#21666]**
Devi Lakshmidivinivas, Meryem Deniz and Balakrishnan S.N.
Missouri University of Science and Technology, United States
- P5717 Fusion of Feature Selection Methods for Improving Model Accuracy in the Milling Process Data Classification Problem [#20344]**
Maciej Kusy, Roman Zajdel, Jacek Kluska and Zabinski Tomasz
Rzeszow University of Technology, Poland
- P5718 Detection of Malicious SCADA Communications via Multi-Subspace Feature Selection [#21614]**
Ehsan Hallaji, Roozbeh Razavi-Far and Mehrdad Saif
University of Windsor, Canada
- P5719 A Light-Weight Crowdsourcing Aggregation in Privacy-Preserving Federated Learning System [#21641]**
Ke Zhang, Siu Ming Yiu and Lucas Chi Kwong Hui
The University of Hong Kong, Hong Kong; Hong Kong Applied Science and Technology Research Institute, Hong Kong

Plenary Poster Session I-P30: Semantic Cognition, emotion, coordination and behavior
Friday, July 24, 7:15PM-9:15PM, Room: IJCNN Poster Room 2, Chair: Sergei Bezobrazov

- P5901 Compose Like Humans: Jointly Improving the Coherence and Novelty for Modern Chinese Poetry Generation [#20371]**
Lei Shen, Xiaoyu Guo and Meng Chen
Key Laboratory of Intelligent Information Processing, Institute of Computing Technology, Chinese Academy of Sciences, Beijing; University of Chinese Academy of Sciences, Beijing, China; JD AI, Beijing, China
- P5902 Adversarial Cross-Lingual Transfer Learning for Slot Tagging of Low-Resource Languages [#20757]**
Keqing He, Yuanmeng Yan and Weiran Xu
Beijing University of Posts and Telecommunications, China
- P5903 Learning Label-Relational Output Structure for Adaptive Sequence Labeling [#20791]**
Keqing He, Yuanmeng Yan, Hong Xu, Sihong Liu, Zijun Liu and Weiran Xu
Beijing University of Posts and Telecommunications, China
- P5904 Legal Feature Enhanced Semantic Matching Network for Similar Case Matching [#21339]**
Zhilong Hong, Qifei Zhou, Rong Zhang, Weiping Li and Tong Mo
Peking University, China

- P5905 Label Noise Robust Curriculum for Deep Paraphrase Identification [#20056]**
Boxin Li, Tingwen Liu, Bin Wang and Lihong Wang
Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China; Xiaomi AI Lab, China; National Computer Network Emergency Response Technical Team Coordination Center of China, China
- P5906 Towards Selective Data Enhanced Implicit Discourse Relation Recognition via Reinforcement Learning [#20289]**
Meilin Zhou, Qi Liang, Lu Ma, Dan Luo, Peng Zhang and Bin Wang
Institute of Information Engineering, Chinese Academy of Sciences, China; Institute of Information Engineering, Chinese Academy of Sciences,, China; Xiaomi AI Lab, China
- P5907 TERG: Topic-Aware Emotional Response Generation for Chatbot [#20339]**
Pei Huo, Yan Yang, Jie Zhou, Chengcai Chen and Liang He
East China Normal University, China; Xiaoi Robot Technology Co., Ltd, China
- P5908 Extricating from GroundTruth: An Unpaired Learning Based Evaluation Metric for Image Captioning [#20620]**
ZhongQiu Zhao, YueLin Sun, NanXun Wang and WeiDong Tian
Hefei University of Technology, China
- P5909 Mining Knowledge within Categories in Global and Local Fashion for Multi-Label Text Classification [#20658]**
Sheng Bi, Peng Shi, Yuntao Du, Bin Jin and Lingshuang Yu
National Key Laboratory for Novel Software Technology, Nanjing University, China
- P5910 Dependency Guided Graph Convolutional Network for Aspect-Based Sentiment Analysis [#20814]**
Peng Shi and Sheng Bi
Nanjing University, China
- P5911 Building a Better Lie Detector with BERT: The Difference Between Truth and Lies [#21048]**
Dan Barsever, Sameer Singh and Emre Neftci
University of California, Irvine, United States
- P5912 Multi-Channel Co-Attention Network for Visual Question Answering [#21196]**
WeiDong Tian, Bin He, NanXun Wang and ZhongQiu Zhao
Hefei University of Technology, China
- P5913 Cascading Top-Down Attention for Visual Question Answering [#21202]**
WeiDong Tian, Rencai Zhou and ZhongQiu Zhao
Hefei University of Technology, China
- P5914 Dependency Based Bilingual word Embeddings without word alignment [#21421]**
Taghreed Alqaisi, Alexandros Komninos and Simon O'Keefe
University of York, United Kingdom
- P5915 TSception: A Deep Learning Framework for Emotion Detection Using EEG [#20217]**
Yi Ding, Neethu Robinson, Qiu hao Zeng, Duo Chen, Aung Aung Phyo Wai, Tih-Shih Lee and Cuntai Guan
School of Computer Science and Engineering, Nanyang Technological University, Singapore, Singapore; Neuroscience and Behavioral Disorders Program, Duke University - National University of Singapore Medical School, Singapore, Singapore; Singapore General Hospital, Singapore, Singapore, Singapore
- P5916 Non-Linearities Improve OrigiNet based on Active Imaging for Micro Expression Recognition [#21663]**
Monu Verma, Santosh Kumar Vipparthi and Girdhari Singh
Malaviya National Institute of Technology, India

- P5917 Audio-Visual Weakly Supervised Approach for Apathy Detection in the Elderly [#21845]**
Garima Sharma, Jyoti Joshi, Radia Zeghari and Rachid Guerchouche
Monash University, Australia; Centre Hospitalier Universitaire de Nice, France; INRIA, France
- P5918 Can Adam Smith's Invisible Hand phenomenon be used for the analysis of Fourth Estate's impact and behavior? [#20628]**
Tadeusz Szuba and Danuta Sztuba
UPJP2 University, Poland
- P5919 Multimodal Emotion Recognition Using Deep Generalized Canonical Correlation Analysis with an Attention Mechanism [#20729]**
Yu-ting Lan, Wei Liu and Bao-Liang Lu Center for Brain-like Computing and Machine Intelligence, Shanghai Jiao Tong University, China; Center for Brain-like Computing and Machine Intelligence, Department of Computer Science and Engineering, Key Laboratory of Shanghai Education Commission for Intelligent Interaction and Cognitive Engineering, Brain Science and Technology Research Center, China

AUTHOR INDEX

A Ward, Jamie.....	102	Akihiro, Matsufuji.....	75
A. Alves, Shara Shami	15	Akinyelu, Andronicus A.	20
A. Monteiro, Claudio.....	11	Aksenova, Tetiana	8
A. Souza, Mariana.....	106	Alabi, Adedapo.....	39
Abbass, Hussein	79	Alain, Claude.....	83
Abdelzad, Vahdat.....	61	Alam, Mahbulul	53
Abderrahmane, Nassim	32	Alamoudi, Shadi.....	77
Abdessalem, Talel.....	31	Alani, Ali A.....	60
Abdoli, Sajjad	19	Al-Ars, Zaid	13, 14
Abdu-Aguye, Mubarak G.....	39	Al-Ayyoub, Mahmoud	15
Abdulaimma, Basma	62	Al-Banna, Mortada	19
Abdullah, Faizan	63	Albert, Paul	69
Abdullah, Malak.....	15	Albuquerque, Celio	15
Abdullahi, Hassana	65	Alceu, Souza Britto Jr.	19
Abe, Motoshi	9, 70	Alcocer, Marcos J. C.....	14
Abedalla, Ayat	15	Alekseev, Sergey	49
Abeysekara, Prabath.....	49	Alessio, Merlo	68
Abraham, Tamas	44	Alex, Doboli.....	89
Abreu, Pedro Henriques.....	64, 108	Alexandra, Vigneron	32
Abrossimoff, Julien.....	101	Alexandre, Frederic.....	38
Abugabah, Ahed	40	Alfaro-Ponce, Mariel	26
Abu-Rmileh, Amjad	49	Alharbi, Fayez	102
Achar, Avinash	57	Alhazmi, Ahoud.....	25, 26
Acharya, Divya	112	Ali, Abbas Raza	41
Adak, Chandranath	93	Ali, Hassan.....	58
Adamiak, Krzysztof	91	Ali, Mohammed Eunus.....	94
Adda, Ahmed	8	Ali, Omar	34
Adeodato, Paulo Jorge Leitao.....	94	Alicioglu, Gulsum	71
Adhia, Divya	15	Alimi, Adel M.	83, 96
Adigun, Olaoluwa	80	Alippi, Cesare.....	99
Adiraju, Prathyusha	33	Alirezaie, Javad.....	87
Adolfo, Perrusquia.....	76	Aljubairy, Abdulwahab	25, 26, 111
Affum, Joseph	90	Al-Jumeily, Dhiya	60
Afonso, Luis	24	Allognon, Sevegni Odilon Clement	91
Agarap, Abien Fred.....	101	Almeida, Jefferson Silva	68, 105
Agarwal, Puneet.....	77	Al-Mubaid, Hisham.....	53
Agarwal, Samarth.....	73	Alnefaie, Ahlam.....	94
Aggarwal, Charu	80	Alouani, Ihsen	105
Aggarwal, Swati	15	Alpcan, Tansu	44
Agrawal, Prarabdha	47	Alqaisi, Taghreed.....	116
Aguirre-Nunez, Jose Alonso	68	Alshabandar, Raghad	60
Ahmad, Zishan	46	Alshahrani, Ali	108
Ahmed, Faruk.....	79, 83	Alshejari, Abeer.....	74
Ahmed, Rehan	58	Altahhan, Abdulrahman	85
Ahmed, Saad	49	Alumae, Tanel.....	66
Ahmed, Sheraz	21, 49, 103	Alvarez, Marco	13, 78, 107
Aickelin, Uwe.....	89	Alves Ribeiro, Victor Henrique	114
Aizenberg, Igor	52	Alves, Fernando.....	12
Akbar, Muhammad Usman	82	Alves, Flavia.....	63
Akbarzadeh Khorshidi, Hadi	89	Al-Zeyadi, Mohammed.....	68
Akella, Ravi Tej	28	Alzuguir Azevedo, Luis Fernando.....	114
Akhtar, Md Shad	100	Amado, Leonardo	13

Amako, Narito	82	Asif, Amina	25
Ambrose, Jonathan	42	Asim, Muhammad	21
Ambwani, Prakash Chanderlal	65	Asmar, Daniel	94, 101
Aminifar, Amir	16	Ataei, Sepehr	87
Amirat, Yacine	80	Atahary, Tanvir	33
Amirizirtol, Kobra	29, 108	Ataky, Steve Tsham Mpinda	30
Amirlatifi, Amin	35	Attal, Ferhat	80
Ammar, Boudour	96	Averna, Alberto	83
Ammar, Shaker	22	Aversano, Lerina	14, 68
Amorim, Jose Pereira	108	Awad, Mariette	15, 94
Amri, Emna	101	Ayache, Stephane	82, 109
An, Jake	12	Ayala, Angel	77
An, Zhulin	13, 24	Azcarraga, Arnulfo	18, 101
Anand, Ashish	19	Azevedo, Pedro	75
Ananthabhotla, Ishwarya	59	Azarin-Lopez, Jorge	88, 110
Anavatti, Sreenatha	79	B. Cardoso, Vinicius	75
Anderson, Derek	109	B.T., Balamurali	11
Andersson, Ulf	79	Babaie, Morteza	27
Andrade, Fabricio Vivas	69	Babyn, Paul	87
Andrade, Joao	47	Bac, Jonathan	38
Andras, Peter	78	Bacanin, Nebojsa	99
Andrea, Romdhana	68	Bacciu, Davide	7, 60
Andreu-Perez, Javier	68	Bach, Olivier	38
Angelastro, Sergio	71	Bacharidis, Konstantinos	110
Anirban, Shikha	112	Back, Thomas	112
Anjin, Liu	43	Bader-El-Den, Mohamed	65
Annabi, Louis	54	Badong, Chen	93
Anran, Yuan	66	Badue, Claudine	12, 75
Antao, Liliana	41	Baeck, Thomas	58
Antipina, Natalia	44	Baghdadi, Asma	83
Antonioti, Marco	98	Bagnall, Anthony	57
Antunes, Augusto	87	Bahrani, Sajjad	63
Anuja, Badeti	103	Bahri, Maroua	16
Aolong, Zhou	102	Bai, Gairui	53
Aparup, Khatua	5	Bai, Lei	12
Apicella, Tommaso	5	Bai, Wentan	75
Aralihalli, Suraj	25	Bai, Wentian	75
Araujo De Souza, Gabriel	79	Bai, Yuxuan	42
Araujo, Ismael	11	Bai, Zongwen	92
Araujo, Mariana Ferreira Pereira de	37	Baik, Sung Wook	21
Araujo, Yago N.	92	Bailey, James	38
Arazo, Eric	69	Bain, Rose	16
Ardimento, Pasquale	68	Bajwa, Muhammad Naseer	21, 49
Arena, Paolo	11	Baker, Thar	60
Argyros, Antonis	32, 88, 110	Bakhtiari Ramezani, Somayeh	35
Aribi, Yassine	83	Balaji, Adarsha	33
Armetta, Frederic	40	Balamurali, Purushothaman	103
Arnout, Hiba	99	Baldini, Luca	7, 63
Arsalan, Muhammad	21, 63	Balint, Gyires-Toth	104
Artieres, Thierry	82, 109	Ballout, Mohamad	101
Arunagirinathan, Paranietharan	80	Baltieri, Manuel	76, 86
Arus, Carles	103	Bandara, Kasun	112
Arya, ShivVrat	6	Bandyopadhyay, Soma	107
Aryal, Sunil	114	Banerjee, Dighanchal	33, 103
Ascencao, Nathalia	24	Banerjee, Pradeep Kr.	43
Asch, Mark	23	Banerjee, Rohan	8

Banerjee, Subhankar	100	Bergmeir, Christoph	71, 112
Banner, Ron	35	Bermudez, Ariana	53
Bany Muhammad, Mohammed	38	Bernardeschi, Cinzia	37
Barao, Timothy	51	Bernardi, Mario Luca	14, 68
Barbiero, Pietro	37	Berrebi, Jonathan	62
Barbirotta, Marcello	30	Bersini, Hugues	51, 87
Barbosa Rodrigues, Bruno	56	Berton, Lilian	92, 99
Barbosa, Luciano	46	Besozzi, Daniela	98
Barbu, Adrian	10, 31	Bessani, Alysson	12
Barddal, Jean P.	34	Best, Paul	23
Bardozzo, Francesco	36	Betti, Alessandro	109, 110
Barredo-Arrieta, Alejandro	96	Beuren, Arlete Teresinha	62
Barreto, Cephas	92	Beydoun, Ghassan	99
Barros, Rodrigo	102	Bezdan, Timea	99
Barros, Rodrigo C.	35	Bezerra, Byron Leite Dantas	66, 80
Barros, Rodrigo Coelho	48	Bezerra, Gabriel	50
Barsever, Dan	116	Bhambri, Suvaansh	62
Basak, Arghya	57	Bhardwaj, Arpit	112
Basarkod, Sumedh	25	Bhardwaj, Harshit	112
Baskin, Chaim	35	Bharill, Neha	22, 85
Basnet, Anish	114	Bhasin, Anmol	13
Bassani, Hansenclever	96	Bhatnagar, Shalabh	86
Basu, Amlan	98	Bhatt, Varun	11
Batatia, Hadj	71	Bhattacharya, Basabdatta	33
Bauckhage, Christian	54, 66, 88	Bhattacharya, Basabdatta Sen	32
Bauer, Alexander	40	Bhattacharya, Purbaditya	49
Baumann, Tobias	61	Bhattacharyya, Pushpak ...	11, 28, 43, 46, 58, 93, 104
Bautembach, Dennis	32	Bhattacharyya, Saugat	111, 112
Bayha, Sertac	72	Bhavsar, Arnav	47
Bayram, Islam Safak	72	Bhowmick, Brojeshwar	78, 91
Bayro-Corrochano, Eduardo	109	Bhowmik, Neelanjan	80
Behera, Laxmidhar	41, 61	Bhuyan, Monowar H	94
Behera, Pranati	100	Bi, Sheng	41, 116
Beheshti, Amin	22	Bian, BeiLei	102
Belatreche, Ammar	72	Bianchi, Andrea	34
Bell, Peter	62, 102	Bichler, Olivier	56
Bellas, Francisco	99, 110	Bidelman, Gavin M.	83
Bellmann, Peter	62	Bifet, Albert	16, 31, 60, 93
Belluzzo, Riccardo	26	Bilasco, Ioan Marius	32
Beltran, Alejandro	79	Binder, Alexander	40, 84
Belyaev, Mikhail	44	Bindu, Haripriya	58
Bembenik, Robert	32	Bis, Daniel	29
Ben Ghezala, Hajjami Henda	70	Bishop, Morgan	53
Benabdeslem, Khalid	63, 92	Biswas, Sandika	91
Benaissa, Azzeddine Rachid	70	Bitton, Ron	20
Benatallah, Boualem	19	Blais-Morin, Louis-Antoine	106
Benetos, Emmanouil	103	Blana, Dimitra	42
Benito-Picazo, Jesus	88	Blanco, Carmelo Fabrizio	11
Benkhelifa, Elhadj	15	Blumenstein, Michael	93
Benlamine, Kaoutar	46	Bo, Li	48
Bennani, Younes	46	Bo, Liu	105
Bennette, Walter	23	Bocheva, Nadejda	103
Benoit, Alexandre	101	Bodin, Ulf	58, 79
Benoudnine, Hadjira	8	Bodyanskiy, Yevgeniy	26
Benton, Ryan G	16	Boesch, Hartmut	25
Berberian, Nareg	6		

Bolon, Bolon.....	101	Cai, Yaoming	97
Boloni, Ladislau.....	104	Cai, Zihua.....	97
Bontempi, Gianluca.....	109, 114	Caicedo, Carlos	75
Borja-Borja, Luis Felipe.....	110	Caldas, Arthur	7
Borngrund, Carl.....	58	Caldas, Wesley	26
Bose, Shamik.....	51	Calderon Ramirez, Saul.....	53
Bosman, Anna Sergeevna	10, 108	Caldwell, Sabrina.....	102
Bouakaz, Saida	92	Cambiaso, Matteo.....	93
Bouaynaya, Nidhal	105	Cambria, Erik	5
Bouaynaya, Nidhal C.	105	Camci, Efe	83
Boumaraf, Said	107	Campbell, Sam	112
Bouneffouf, Djallel.....	80	Campiotti, Israel.....	97
Bouridane, Ahmed	72	Campolo, Domenico	83
Bowen, Dennis	53	Campos, Lidio Mauro Lima.....	18
Bowers, Jeffrey S.....	46	Canals, Vincent.....	96
Boyd, Peter.....	76	Candiota, Ana Paula.....	103
Bozorgzad, Sean.....	86	Cangelosi, Angelo.....	89
Braga, Pedro	96	Canitia, Bruno	63, 92
Bragg, Graeme M.....	33	Canlong, Zhang	17
Brambilla, Marco	34	Cannings, Nigel.....	66
Braun, Stephan Alexander.....	49	Cano Uribe, Sebastian.....	36
Breckon, Toby P.....	80	Canton, Cristiane	57
Breve, Fabricio	92	Canuto, Anne	69, 92
Brevilliers, Mathieu.....	59	Canuto, Anne Magaly de P.....	92
Bridi Guazzelli, Arthur	56	Canuto, Anne Magaly de Paula.....	70
Brieva, Jorge	23	Cao, Jiuwen	97
Briggs, Christopher	78	Cao, Longbing.....	54
Brijesh, Verma.....	70	Cao, Meng	25
Brito da Silva, Leonardo Enzo	78	Cao, Ruixu	39
Brito, Kellyton dos Santos	94	Cao, Weipeng	97
Britto Jr, Alceu.....	19	Cao, Xixin.....	111
Britto Jr, Alceu de Souza.....	30, 62, 91	Cao, Xue	42
Britto Jr., Alceu S.	34	Cao, Yanan	20, 55, 107
Bronner, Johanna.....	99	Cao, Yu	8, 87, 112
Bronstein, Alex M.	35	Cao, Zhen	55
Brown, Andrew.....	33	Cao, Zhiwen.....	42
Brown, CScott	16	Cappabianco, Fabio.....	87
Brown, Samuel.....	33	Capretz, Miriam.....	86
Bruer, Grant	42	Cardoso Pereira, Ricardo	64
Bruna, Arcangelo Ranieri.....	36	Cardoso, Jaime S.	51, 83
Brunese, Luca	14	Carlos, Mosquera.....	88
Bu, Rui.....	100	Carneiro, Murillo Guimaraes.....	63
Buckley, Christopher.....	86	Carroll, Paula	45
Budhraj, Sugam	32	Carsten, Rudolph.....	68
Buesser, Beat.....	80	Carta, Antonio	60
Bunte, Kerstin.....	25	Carvalho, Bruno Motta de.....	70
Burattin, Andrea	22, 93	Cascianelli, Silvia	53
Burke, Michael	108	Casolare, Rosangela	37
Bussolino, Beatrice	21	Castaneda, Carlos	17
Cagna, Bastien.....	82	Castellana, Daniele.....	7
Cai, Binsi	65	Castellano, Giovanna	6
Cai, Haibin.....	100	Castiello, Ciro.....	6
Cai, Jia	114	Castro, Eduardo.....	51
Cai, Jinghui.....	75	Castro, Pedro B.C.....	27
Cai, Jinglun.....	29	Caterina, Gaetano.....	98
Cai, Linqin	36, 43	Caterina, Gaetano Di.....	98

Catthoor, Francky	33	Chen, Dehua	69
Cavalcanti, George D. C.	30, 106	Chen, Dong	69
Cavalin, Paulo	74	Chen, Duo	116
Cavalin, Paulo Rodrigo	114	Chen, Fang	74
Cazorla, Miguel	8, 110	Chen, Feng	14
Cazzaniga, Paolo	98	Chen, Hechang	104
Cebolla, Anita	109	Chen, Huaming	27
Cerquera, Alexander	30	Chen, Huanhuan	19
Cevallos, Claudio	23	Chen, Jiazhong	35, 108
Chabardes, Stephan	8	Chen, Jing	70
Chacon-Murguia, Mario I.	49	Chen, Keying	109
Chadwick, Edward	42	Chen, Lei	31
Chagas Nunes, Joao Antonio ..	66	Chen, Meng	115
Chai, Yixuan	67	Chen, Mengnan	31
Chai, Zheng	31	Chen, Nanxin	66
Chairez, Isaac	26	Chen, Ning	65
Chakraborty, Biswadeep	43	Chen, Qi	11
Chakraborty, Shayok	9, 100	Chen, Qiang	59
Chakravarty, Tapas	33	Chen, Qiaohong	43, 48
Chalmers, Carl	10, 62	Chen, Qilei	87, 112
Chalup, Stephan	37	Chen, Rui	60
Chan, Chien	64	Chen, Runze	110
Chan, Jeffrey	38, 42	Chen, Siyuan	98
Chan, Robin	89, 104	Chen, Songbo	71
Chan, Yi-Ming	14	Chen, Songjian	55
Chandra, M Girish	72	Chen, Ting	65
Chaney, Kenneth	32	Chen, Wang	106
Chang, Jun	111	Chen, Wenxiao	78
Chang, Liang	80	Chen, Wocheng	105
Chang, Simyung	58	Chen, Xi	107
Chang, Xiang	59	Chen, Xiancong	64
Chao, Fei	59	Chen, Xiaocong	12
Chao, Han	21	Chen, Xiaojun	107
Chao, Shang	19	Chen, Xiaoyi	56
Chaochen, Gu	107	Chen, Xi-Tian	79
Chaoshi, Wei	75	Chen, Xue	108
Charitou, Charitos	69	Chen, Xuewen	64
Chatapuram Krishnan, Narayan ..	56, 107	Chen, Yangbin	92
Chatterjee, Joyjit	62	Chen, Yao	35
Chatterjee, Saikat	6, 99	Chen, Yaran	67
Chaturvedi, Iti	5	Chen, Yi-Ling	113
Chaudhuri, Bidyut B.	93	Chen, Ying	84
Chauhan, Jatin	48	Chen, Yingjie	19, 42
Chauhan, Joochi	27, 54	Chen, Yingke	107
Chauhan, Vikas	6	Chen, Yingying	84
Chavan, Tanmay	11	Chen, Yiwen	76
Chaves, Iago	79	Chen, Yujing	31
Che, Chao	26	Chen, Zehua	27
Checinski, Karol	20	Chen, Zezhou	113
Chen, Bo	65, 75, 112	Chen, Zhangshao	41
Chen, C. L. Philip	65	Chen, Zhao	94
Chen, Chen	40	Chen, Zhihao	87
Chen, Chengcai	115	Chen, Zihao	40
Chen, Chunlin	67	Chen, Ziheng	61
Chen, Chunquan	39	Cheng, Bo	65
Chen, Chu-Song	14	Cheng, Hao	113

Cheng, Lianglun	70	Conche, Bruno	101
Cheng, Liao	61	Conci, Aura	15
Cheng, Miaomiao	69	Conegundes, Leonardo	72
Cheng, Xiaochun	40	Conradt, Jorg	17, 98
Chengyuan, Deng	106	Cooper, Kay	108
Chengzhong, Xu	107	Coraddu, Andrea	80
Chetty, Madhu	84	Cornell, Samuele	59
Cheuk, Kin Wai	10, 11	Cosma, Georgina	60, 71
Chevtchenko, Sergio	102	Cossu, Andrea	60
Chi, Chi-Hung	27	Costa Pereira, Jose	51
Chi, Ying	76	Costa, Ranna	92
Chiappalone, Michela	83	Cotacallapa, Moshe	99
Chibani, Abdelghani	80	Couturier, Raphael	87
Chieh Yu, Ingrid	103	Craw, Susan	29
Chien, Jen-Tzung	40, 43, 78, 87, 88	Crescimanna, Vincenzo	78
Chin, Wei Hong	75, 82	Crockett, Keeley	27, 38, 89
Chitsaz, Hamdreza	62	Crowley, Mark	91
Chmiel, Brian	35	Cruz, Edmanuel	110
Cho, Seungju	25	Cruz, Francisco	77
Cholewiak, Danielle	23	Cruz, Nicolas	88
Chonan, Yuya	23	Cui, Lizhen	19
Chong, Penny	84	Cui, Tingru	99
Choras, Michal	22, 58	Cui, Yiming	19, 42
Chorowski, Jan	66	Cui, Yuning	91
Chowdhury, Abir	43	Cummins, Nicholas	67
Chowdhury, Anirban	111, 112	Curbelo Montanez, Casimiro	62
Chowdhury, Arijit	33	Cutsuridis, Vassilis	24
Choy, Jin Xiang	5	Cvejoski, Kostadin	66
Choy, Ruth Hui Yi	73	Czarnecki, Krzysztof	61
Christmas, Jacqueline	28	Czwarnowski, Piotr	53
Christoph, Gaertner	22	D. C. Cavalcanti, George	30, 106
Christopher, Hodge	27	D. Ruiz, Duncan	47
Christou, Vasileios	97	Da Costa-Abreu, Marjory	79
Chua, Yansong	32	da Silva Barros, Antonio Carlos	105
Chuang, Zhang	55	da Silva, Adenilton	11
Chung, Hoon	40, 41	da Silva, Matheus	68
Ciaparrone, Gioele	36	da Silva, Ramon Gomes	57, 113
Ciesielski, Vic	39	da Silva, Suane Pires P.	15, 105
Cimitile, Marta	14, 67, 68	da Silva, Ticiana	38
Cini, Andrea	99	Dadhich, Siddharth	79
Cipollini, Francesca	80	Daher, Rema	94
Cirrincione, Giansalvo	29, 37	Dai, Hongning	48
Cizotto, Andre	68	Dai, Jiao	64
Claudia, Guerreiro	5	Dai, Shuang	45
Clawson, Kathy	14	Dai, Tao	63
Clua, Esteban	15	Dai, Wei	64
Cocco Mariani, Viviana	57, 113	Dai, Yilin	94
Coelho, Leandro dos Santos	57, 113	Dai, Zhengjia	79
Coito, Tiago	98	Dal Molin Ribeiro, Matheus Henrique	57, 113
Coleman, Sonya	27	Dalechina, Alexandra	44
Colling, Pascal	89	Dam, Nhan	114
Colliri, Tiago	69	Damasevicius, Robertas	15
Colombo, Danilo	24	Dang, Xuan	101
Colonel, Joseph	102	Dari, Simone	49
Colucci, Alessio	21	Das, Anup	33
Colyer, Edwin	38	Das, Dipanjan	78

Das, Sarkar Snigdha Sarathi.....	94
Das, Shidhartha	84
Das, Swagatam.....	10
Dash, Debadatta	111
Dashtipour, Kia.....	102
Date, Prasanna	103
Dauwels, Justin	84
David, Eli	62
David, Newman.....	103
David, Noelle.....	65
Davide, Caputo	68
Davis, Curt.....	109
Dawer, Gitesh	10, 31
Dawson, Glenn.....	44
Day, Charles	42
Dayan, Michael	82
Dayong, Ding	52
de Araujo, Thiago.....	13
de Carvalho, Francisco	18
de F. Souza, Luis Fabricio	68
de Mattos Neto, Paulo S. G.	30
De Meulemeester, Hannes	31
De Moor, Bart.....	31
de Oliveira, Joao Fausto L.	30
de Oliveira, Roberto Celio Limao ..	18
De Paula Neto, Fernando M	11
De Plaen, Henri.....	9
De Ridder, Dirk.....	15
De Santis, Enrico	63, 64
de Souza Britto Jr., Alceu.....	91
de Souza, Joao W. M.....	15
De Vel, Olivier	44, 108
Dean, Mark.....	42, 74
Debella, Tsegamlak T.	58
Debie, Essam.....	83
Decourselle, Thomas	87
Dees, Bruno Scalzo	27
Deforges, Olivier	44
Dejing, Dou.....	103
Del Ser, Javier.....	30, 96
Dellana, Ryan.....	103
Delli Priscoli, Mattia.....	36
Demidovskij, Alexander.....	41
Demirel, Emir	62
Demirovic, Emir	38
Deng, Fang.....	90
Deng, Hangyu	106
Deng, Jeremiah.....	15
Deng, Kun	9
Deng, Muqing.....	97
Deng, Yali.....	56
Dengel, Andreas	21, 49, 103
Deniz, Meryem	114
Derakhshani, Reza.....	12
Dethlefs, Nina.....	62
Dewan, Dipayan.....	43
Dey, Sounak	33, 103
Dey, Sumi	40
Deyun, Zhou	21
D'Giano, Carlos.....	71
Dhaliwal, Jasjeet	44
Dhaliwal, Mehak.....	62
Dhir, Neil	46
Di Caterina, Gaetano	98
Di Nuovo, Alessandro	89
Di, Xinhua	100
Diallo, Elhadji Amadou Oury.....	54
Dias, Madson	38
Dias-Silva, C. H.....	15
Diaz Ramos, Antonio	88
Diaz-Alvarez, Adrian	96
Dineley, Judith	67
Ding, Alexander	87
Ding, Ning	63
Ding, Yi	116
Ding, Zhiquan.....	111
Ding, Zhuanlian.....	34
Ding, Zixiang	67
Dionisio, Nuno.....	12
Disabato, Simone.....	45, 67
Ditzler, Gregory	104
Dixon, Simon.....	103
Do, Bao Son.....	85
Do, Thanh-Toan.....	63
Doboli, Simona.....	89
Doborjeh, Maryam	32
Doborjeh, Zohreh.....	32
Dolfing, Hans	66
Dolz, Jose	106
Domenici, Andrea	37
Domeniconi, Carlotta	114
Domingues, Pedro Henrique	114
Dominguez, Enrique	88
Dong, Daoyi	67
Dong, Hai	49
Dong, Han.....	77
Dong, Jing.....	26
Dong, Min.....	41
Dong, Shoubin	20
Dong, Yang	17
Dongming, Zhou	17
Donthi Reddy, Sai Narsi Reddy	12
Dora, Shirin	83, 102
Dorien, Herremans.....	10
dos S. Silva, Francisco Hercules	68
dos Santos Coelho, Leandro	57, 113
dos Santos, Antonio Carlos	56
Dou, Yong.....	92
Douglass, Scott.....	33
Dragicevic, Simo	69
Drioli, Carlo	66
Drossos, Konstantinos	59

Du, Changde	24	Fairbank, Michael.....	29
Du, Xiacong.....	8	Falandays, Ben	65
Du, Yuntao	116	Falcao y Martin, Marcos	15
Duan, Meichen	53	Falcetta, Alessandro	67
Duan, Mingjun	13	Falez, Pierre.....	32
Duarte, Danilo Souza	18	Fan, Jingjing.....	59
Dudek, Grzegorz	6, 29	Fan, Shuhui.....	79, 94
Duffner, Stefan	10	Fan, Xiaolong.....	20
Duncan, Kirsty	44	Fan, Zhenlin	90
Dunn, Paul.....	14	Fan, Zhong.....	78
Dupe, Francois-Xavier	82	Fang, Fang.....	20, 55
Dupuy, Tamara	8	Fang, Haowen.....	98
Duro, Richard J.	110	Fang, Yan	33
Durrant, Simon	32	Fang, Zheng.....	106
Dutt, Nikil	33	Fanuel, Michael.....	9
Dutta Baruah, Rashmi.....	31, 35, 107	Fei, Sun.....	102
Dutta, Ashish.....	41	Felix, Heitor.....	40
Dutta, Bhaskar Jyoti	94	Fellous, Jean Marc.....	39
Dzhamtyrova, Raisa.....	93	Feng, Aosong.....	81
Dziekiewicz, Mirosław	44	Feng, Liang	109
Ebrahimpour, Mohammad.....	65	Feng, Rui	55, 74
Ekbal, Asif	11, 46, 58, 93, 100	Fenwick, Rose	25
Ekladios, George.....	39	Fergus, Paul.....	10, 62
Eklund, Peter.....	22, 28	Ferilli, Stefano	71
El Zini, Julia	94	Fernandes Brunialti, Lucas	77
Elbert, Macau	99	Fernandes, Bruno	77
Ella, Haig.....	34	Fernandes, Bruno Jose Torres	80
Elshaw, Mark.....	15, 51	Fernando, B. Rasitha	81
Elyan, Eyad	30, 62, 100	Ferrari, Maxence.....	23
Engelbrecht, Andries Petrus	10	Ferrari, Paul	111
Engelsberger, Alexander.....	63	Ferraro, Gabriela.....	74
Epps, Julien.....	98	Ferreira Junior, Marcos A. Araujo.....	68
Erfani, Sarah	28, 44, 64, 99	Ferreira, Leonardo	99
Ergun, Efe	20	Ferreira, Pedro.....	12
Eri, Sato-Shimokawara	75	Ferretti, Jacopo	37
Ericeria, Daniel.....	34	Fezza, Sid Ahmed.....	44
Esaki, Hiroshi	25	Fidel, Gil.....	20
Escalona, Felix	8	Figueiredo, Joao	98
Esmailpour, Mohammad	19	Figueredo, Graziela	75
Esmeli, Ramazan	65	Figueredo, Graziela P.	14
Esposito, Fabrizio.....	36	Filho, Pedro.....	47
Estevez, Pablo	39	Firdaus, Mauajama	93
Estevez, Pablo Antonio	27, 28	Firme, Bernardo	98
Eugene, Smirnov.....	41	Fischer, Carlos Norberto.....	92
Evans, Alan	109	Fisher, Robert	8
Evans, Nicholas	7	Fleishman, Erica	23
Ewert, Sebastian	59	Florian, Richter.....	45
F Cardoso, Amilcar	81	Fontenla-Romero, Oscar	31
F. Berriel, Rodrigo	12	Fontinele, Jefferson	48
F. De Souza, Alberto.....	12, 75	Forbes, Glenn	29
Faal, Farshid	101	Forechi, Avelino	75
Fabietti, Marcos.....	5	Foresti, Gian Luca.....	66
Fabietti, Marcos Ignacio	83	Forestier, Germain.....	59
Facon, Jacques.....	62	Forrester, Tyler	89
Faigl, Jan.....	54	Forster, Carlos Henrique	56
Faina, Andres	110	Foshie, Adam.....	42, 74

Fountas, Zafeirios	55	Garcia-Redondo, Fernando	84
Fourati, Rahma	83, 96	Garkuwa, Bello.....	48
Fourrier, Nicolas.....	74	Garratt, Matt.....	38
Fraccanabbia, Naylene	57, 113	Garratt, Matthew	79
Fraga Pereira, Ramon.....	13	Gastaldo, Paolo	5
Francisco Moreno-Garcia, Carlos	48, 100	Gastinger, Julia	86
Francisco, Hercules	50	Gattu, Navyata	81
Franco, Artur O. R.....	55	Gaussier, Philippe.....	101
Frank, Eibe	31	Gavenski, Nathan	102
Fraser, Lucy	29	Gavenski, Nathan Schneider	48
Frattale Mascioli, Fabio Massimo	53	Ge, Hongwei	91, 109
Freire, Valdinei	77	Ge, YingYing.....	79
Freiwald, Jan.....	58	Gedeon, Tom.....	7, 102
Freund, Jan A.....	30	Gegov, Alexander	34
Frid, Alex	82	Genova, Bilyana.....	103
Fu, Guohong	42	George Karimpanal, Thommen	85
Fu, Kaiwei.....	96	George, Arun M.	33, 103
Fu, Shaojing	79	Georgiev, Bogdan	66
Fu, Zhenyong	10	Gerada, Chris.....	71
Fuentes Hitos, Dunai.....	84	Gerard, Sutton	27
Fuentes, Olac.....	40	Geremias, Jhonatan.....	19
Fujiwara, Yasuhiro	84	Geurts, Pierre.....	54
Furber, Steve	110	Geva, Amir B.....	49
Fuster-Guillo, Andres	110	Ghaffari, Meysam.....	108
G. Medeiros, Aldisio	15	Ghali, Fawaz	60
Gabrielli, Leonardo.....	59	Gharib, Shayan	59
Gabrys, Bogdan	74	Ghojogh, Benyamin	91
Gaggero, Stefano.....	80	Ghose, Avik.....	8
Gai, Sibo.....	64	Ghosh, Lidia.....	43
Gairing, Martin.....	63	Ghosh, Sayantani	17
Galdino da Silva, Eraylson	30	Ghosh, Sreejita	25
Galea, Michael	71	Ghosh, Swaroop	81
Galeana-Perez, Deysy	109	Ghrib, Zeineb	47
Gallicchio, Claudio	7, 30	Giacomello, Edoardo	15
Gan, Jun.....	113	Giampieri, Mauro	63
Ganaie, M.A.	7	Giangrande, Paolo	71
Gandhi, Apurva	91	Giannakeas, Nikolaos	97
Gang, Chen.....	85	Gianoglio, Christian.....	5
Gang, Yang	20, 52	Gibert, Daniel	51
Gangashetty, Suryakanth.V	19	Gielczyk, Agata	22
Ganguly, Udayan	11, 109	Gillespie, Douglas	23
Gangwar, Vivek Kumar	65	Gilon, Cedric	87
Gangwei, Cheng	52	Gimzewski, James	96
Gao, Haiyan	64	Givigi, Sidney	9
Gao, Junbin	34, 47, 70	Gjergji, Mikel	13
Gao, Min.....	91, 105, 106	Glackin, Cornelius.....	66
Gao, Neng.....	70, 78, 106	Glandon, Alexander	53
Gao, Rong.....	64	Glotin, Herve	23
Gao, Wei	41	Godahewa, Rakshitha	71
Gao, Yang	49	Goel, Shivani.....	112
Gao, Yinghua	63	Gogate, Mandar	102
Gao, Zishu.....	94	Golanov, Andrey	44
Garcez, Artur.....	69	Goltz, Sean	38
Garcia Diaz, Antonio	51	Gomaa, Walid	39
Garcia, Christophe	10	Gomes da Silva, Ramon	57, 113
Garcia, Johan	23	Gomes, Fernando A. de C.....	55

Gomes, Heitor Murilo	16, 93	Guangquan, Zhang	43
Gomes, Joao	79	Gubbi, Jayavardhana	21, 62
Gomes, Joao Paulo	26	Guerchouche, Rachid	116
Gomes, Rodrigo	13	Guest, Richard	27
Gomez-Donoso, Francisco	110	Guggenmos, David	83
Goncalves, Gil	41	Guha, Prithwjit	19
Gong, Daoxiong	41	Guijarro-Berdinas, Bertha	31
Gong, Maoguo	6, 20	Guijo-Rubio, David	57
Gong, Wenyin	97	Guo, Chenfeng	7
Gong, Xiaopeng	107, 108	Guo, Heng	76
Gonzalez, Jose	15	Guo, Jianhui	10
Gonzalo, Napoles	88	Guo, Jinjin	10, 88
Gorban, Alexander N.	16	Guo, Jun	35
Gordon, Ilay	62	Guo, Shasha	100
Gorgonio, Arthur	69, 92	Guo, Tao	8
Gorgonio, Arthur C.	92	Guo, Wei	19
Gorgonio, Flavius	69	Guo, Weili	10
Gorgonio, Flavius L.	92	Guo, Xiaoyu	115
Gori, Marco	31, 109, 110	Guo, Yangzi	10, 31
Gorman, Thomas	24	Guo, Yu	52
Gorse, Denise	72	Guo, Yuefeng	71
Gottschalk, Hanno	89, 104	Guo, Zhongwen	99
Gou, Gaopeng	52	Gupta, Akshansh	22
Gowgi, Prayag	25	Gupta, Ananya	106
Goyal, Anil	113	Gupta, Deepak	94
Goyal, Mohit	11	Gupta, Kamal Kumar	11
Goyal, Puneet	27, 54	Gupta, Khushboo	46
Goyal, Rajan	11	Gupta, Kishor Datta	97
Graepel, Thore	61	Gupta, Meenu	36
Graham, Bruce	78	Gupta, Prashanat K	94
Granada, Roger	102	Gupta, Shikhar	15
Granger, Eric	39, 106	Gupta, Shriya	33
Grassi Junior, Valdir	54	Gupta, Sunil	85
Grave, Marcelo	74	Gursoy, Mustafa	75
Gray, Alexander	80	Gutierrez, Pedro A.	57
Green, Sam	6	Guy, Cheron	109
Gregoire, Jean-Marie	87	Guzy, Filip	22
Grimaccia, Francesco	72	Habimana, Olivier	47
Grozavu, Nistor	46	Hack, Thomas Paul	89
Gruening, Philipp	69	Hafke-Dys, Honorata	26
Gruhl, Christian	9	Hagras, Hani	68
Grund Pihlgren, Gustav	36	Hahm, Cheul-hee	58
Grunitzki, Ricardo	85	Haidar, Rim	27
Grycuk, Rafal	19	Haider, Adnan	21
Grzenda, Maciej	16	Haji Soleimani, Behrouz	101
Grzywalski, Tomasz	26	Halder, Shirsendu Sukanta	28
Gu, Chenghong	45	Hallaji, Ehsan	115
Gu, Pengjie	31	Hambrook, Kyle	44
Gu, Qinghua	78	Hameed, Ibrahim	13
Gu, Xiaodong	18, 47, 63	Hamidouche, Wassim	44
Gu, Xiwu	47	Hamidov, Galib	26
Guan, Cuntai	76, 116	Hamidreza, Kasaei	104
Guan, Ling	97	Hamilton, Graeme	29
Guan, Yingda	108	Hammer, Barbara	60
Guan, Zhe	85	Hammond, Travis	86
Guang, Yao	75	Han, Guoqiang	65

Han, Hu	103	Ho, Mun Kit	56
Han, Jiale	65	Ho, Shen Shyang.....	71
Han, Jizhang	64	Hoang, Thanh	80
Han, Jizhong	8	Hochstetter, Joel.....	96
Han, Yi.....	44	Hochuli, Andre G.....	34
Han, Yuxuan	74	Hocquet, Guillaume	56
Hanif, Muhammad Abdullah.....	21, 58, 110	Hodgson, Jonathan.....	14
Hao, Cheng	107	Hofstee, Peter	14
Hao, Kuangrong	96	Holanda, Gabriel B.....	15
Haobo, Rao	48	Holstrup, Alexander	22
Haq, Ijaz Ul.....	21	Hong, Wenjing	85
Haque, Rejwanul.....	11	Hong, Xia	70, 77
Harandi, Mehrtash.....	74	Hong, Zhilong.....	115
Harbaoui, Azza.....	70	Hongbin, Sun	102
Harer, Jacob.....	6	Hongo, Shuto	52
Harkin, Jim	9	Horita, Luiz Ricardo Takeshi.....	54
Hartono, Pitoyo	18	Horzyk, Adrian	20
Haruka, Sekino.....	75	Hosino, Tikara	86
Hasan, Bashar Awwad Shiekh.....	114	Hospedales, Timothy	66
Hase, Ryoya.....	76	Hossam, Mahmoud.....	15
Hashemi-Sakhtsari, Ahmad	41	Hou, Haodi	49
Haydarov, Kilichbek	21	Hou, Junlin	74
Hazra, Sumit	36	Hou, Luyang.....	79
He, Bin.....	116	Hou, Xinwen.....	84
He, Cheng	100	Hou, Yaqing	91, 109
He, Haibo	6, 61, 84, 90	Hougen, Dean Frederick.....	86
He, Huiguang	24	Howells, W. Gareth	27
He, Jiabo	28, 99	Hozhabrierdi, Pegah	84
He, Jiayuan	64	Hsiang, Tien-Ruey	19
He, Keqing.....	115	Hsu, Po-Chien.....	78
He, Liang	115	Hsu, Wynne	55
He, Renke	105	Hu, Cheng-Hsiang	113
He, Xiangchun.....	80	Hu, Chenlu	109
He, Yi.....	70	Hu, Gang.....	68
He, Yujiang.....	113	Hu, Jincheng	14
He, Yuning.....	18	Hu, Jinglu	106
He, Zhe.....	97	Hu, Jinlong	20
Hegedus, Istvan	20	Hu, Junfeng.....	18
Helbig, Marde	10	Hu, Kai	100
Helble, Tyler	23	Hu, Minghao.....	46
Helinski, Ryan	6	Hu, Songlin	8, 64
Hel-Or, Hagit	81	Hu, Wei	77
Henderson, David	65	Hu, Wenyue	40
Henriques Abreu, Pedro.....	64, 108	Hu, Wenzheng	100
Henriques, Roberto	18	Hu, Xiaolong	13, 24
Henze, Janosch	113	Hu, Xiyuan	40
Herman, Pawel.....	11	Hu, Yahong	12
Herremans, Dorien.....	11	Hu, Yan	35
Herrera-Guzman, Rafael.....	68	Hu, Yiwei.....	34
Hervas-Martinez, Cesar	57	Hu, Yue	19
Herzing, Denise.....	23	Hu, Zhenhao	100
Hien T, Nguyen	5	Hua, Xian-Sheng.....	76
Higham, Desmond	16	Huang, Chaoran.....	12
Hinaut, Xavier.....	30	Huang, Ching-Wei.....	40
Hirose, Akira.....	30, 52	Huang, Guan-Ru.....	19
Ho, Lester.....	87	Huang, Haojie	65

Huang, HeYan.....	19	Ismail Fawaz, Hassan.....	59
Huang, Jian.....	38	Isokawa, Tejiro.....	52
Huang, Lele.....	80	Ivo, Roberto F.....	15
Huang, Lilan.....	60	Iwashita, Motoki.....	76
Huang, Qi.....	111	Iyer, Laxmi R.....	32
Huang, Shaobin.....	79	Izanloo, Reza.....	7
Huang, Weiqing.....	13	J. Sanchez, Ramses.....	66
Huang, Wenjie.....	89	Jafari, Ali.....	78
Huang, Wenzhuo.....	111	Jagannathan, Sarangapani.....	76
Huang, Yongfeng.....	84	Jahrens, Marius.....	11
Huang, Yu-Min.....	87, 88	Jain, Deepak.....	43
Huang, Yunfeng.....	64	Jain, Deepak Kumar.....	22, 36
Huang, Zhen.....	46	Jain, Dhruval.....	18
Huang, Zhengwen.....	57	Jain, Prayas.....	71
Huang, Zhi-An.....	9	Jain, Rachna.....	36
Hubczenko, David.....	44	Jain, Shobhit.....	58
Hueger, Fabian.....	89, 104	Jain, Shomik.....	91
Huellermeier, Eyke.....	49	Jaiswal, Aman.....	56
Hugget, Alain.....	38	Jalil, Syed Qaisar.....	37
Hui, Lucas Chi Kwong.....	115	Jalilifard, Amir.....	69
Hui, Shi.....	114	Jamieson, Laura.....	100
Huiyu, Zhou.....	90	Jan, Hamann.....	43
Hultmann Ayala, Helon Vicente.....	114	Jana, Nanda Dulal.....	10
Huo, Jing.....	49	Japa, Sai Sharath.....	100
Huo, Pei.....	115	Jaswal, Gaurav.....	47
Huo, Yongkai.....	24	Javed, Abbas.....	10
Hurt, Alex.....	109	Jayawardene, Iroshani.....	80
Hurtik, Petr.....	28	Jaziri, Rakia.....	47
Hussain, Abir.....	23, 60	Jean, Martinet.....	32
Hussain, Amir.....	4, 37, 102	Jeffries, Bryn.....	27
Huynh, Thi Thanh Binh.....	85	Jelascity, Mark.....	20
Huynh, Tuan Tu.....	59	Jengnan, Tzeng.....	18
Huynh, Viet.....	15, 114	Jensen, Louis.....	6
Hwu, Tiffany.....	16	Jeon, Hyeong-Bae.....	41
I S Filho, Gustavo.....	11	Jerzy, Zieba.....	22
Iammarino, Martina.....	68	Jha, Ranjeet Ranjan Jha.....	47
Ichikawa, Kohei.....	55	Jhunhunwala, Aman.....	61
Ichimura, Takehiro.....	30	Ji, Qian.....	94
Ida, Yasutoshi.....	84	Ji, Qiang.....	41
Idoumghar, Lhassane.....	59	Ji, Shuyun.....	12
Ieracitano, Cosimo.....	36, 37	Ji, Tianyao.....	71
Iffekharuddin, Khan.....	53	Ji, Tingting.....	90
Iida, Hajimu.....	55	Ji, Xiangli.....	91
Iima, Hitoshi.....	52	Jia, Jia.....	112
Ijspeert, Auke Jan.....	82	Jia, Ruipeng.....	20, 55, 107
Imakura, Akira.....	38	Jia, Xiuyi.....	62
Impedovo, Donato.....	80	Jia, Yubo.....	43, 48
Imran, Razzak.....	36, 49, 86, 93	Jiang, Bin.....	87
Inoue, Matheus.....	56	Jiang, Bo.....	85
Inoue, Souya.....	86	Jiang, Fengyixin.....	64
Iqbal, Sadaf.....	36	Jiang, Jianmin.....	24
Iqra, Kamran.....	36	Jiang, Jianrong.....	69
Ishibuchi, Hisao.....	82	Jiang, Liu.....	101
Ishikawa, Masato.....	9	Jiang, Minghao.....	52
Islam, Md. Saiful.....	112	Jiang, Mingxing.....	99
Islam, Muhammad.....	109	Jiang, Wei.....	8

Jiang, Wenming	51	Kadrileev, Nikolay	49
Jiang, Yiwen	70	Kaewrak, Keerati.....	98
Jiang, Zhewei	81	Kai, Ma.....	107
Jiantao, Wu	16	Kai, Yi.....	27, 43
Jiao, Jinlong	67	Kai, Zhu.....	64
Jiao, Licheng	48	Kaijie, Wu.....	107
Jiao, Pengfei	108	Kaijun, Ren	102
Jiao, Shi.....	21	Kaji, Daisuke	17
Jie, Lu.....	43	Kali, Szabolcs	101
Jie, Tian.....	107	Kalnishkan, Yuri	93
Jieping, Xu.....	52	Kamali, Kaveh.....	39
Jiexia, Ye.....	107	Kamath, Archit Krishna	41
Jilling, Adam.....	78	Kamboj, Ankur	61
Jimenez Castano, Mateo	36	Kamiura, Naotake	52
Jimeno Yepes, Antonio Jose.....	60	Kanani, Chandresh Shambhubhai.....	28
Jin, Beihong	85	Kandilogiannakis, George.....	25
Jin, Bin.....	116	Kang, Yachen	64
Jin, Bo	75	Kapusta, Pawel	91
Jin, Jiong	113	Karaman, Muge	7
Jin, Qiuqing	42	Karbachevsky, Alex	35
Jin, Yaochu.....	27, 96	Kargar, Mehdi	93
Jin, Zhao.....	75, 98	Karmakar, Gour	84
Jin, Ziwei	67	Karray, Fakhri	47, 91
Jinbo, Bi.....	19	Karthik, Gokul	57
JinCheon, Na	5	Kasabov, Nikola	32
Jing, Bai.....	66	Kashyap, Hirak.....	16, 33
Jing, Kun	101	Kasmarik, Kathryn.....	79
Jing, Liping	69	Kassem Zein, Mohammad.....	94
Jingjing, You.....	27	Kasthuriarachchy, Buddhika Hasantha.....	84
John, Indu.....	86	Kat, Agres	10
Johnston, J. Travis	103	Katagami, Daisuke.....	76
Johnston, Pam	48	Kate, Bowers.....	37
Jones, Richard	102	Kathirvel, Ram Prabhakar.....	62
Josef, Dick.....	27	Katz, Garrett.....	46
Joshi, Jyoti.....	116	Kaul, Manohar.....	48
Jovanovic, Raka	72, 99	Kawai, Shin	48
Joy, Colin Paul	36	Kawi, Omar	14
Ju, XiaoMing	102	Kay, Bill	103
Ju, Zhaojie.....	76	Kayacan, Erdal.....	82, 83
Juan, Castro-Garcia.....	39	Kayes, A.S.M.....	112
Juanjuan, Zhao	107	Kayesh, Humayun.....	112
Julia-Sape, Margarita	103	Kazhdan, Dmitry	61
Jun, Tae Joon	25	Ke, Weijie.....	98
Jung, Ho-Young	41	Kebria, Parham	42
Junqiang, Song	102	Keene, Sam	102
Junshuai, Yu	34	Kehoe, Jacqueline	16
JunYan, Jiang	114	Kehrer, Johannes.....	99
Junyu, Dong	90	Keight, Robert.....	60
Jurado, Francisco.....	17	Kejiang, Ye.....	107
Jutinico, Andres.....	30	Kelly, Kate.....	114
Juven, Alexis	30	Kenworthy, Jared.....	89
K. Mohan, Chilukuri.....	84	Keohane, Olivia.....	52
Kabir, H M Dipu.....	89	Keraghel, Abdenacer	63
Kaburlasos, V. G.	11	Kerschke, Pascal	105
Kadiri, Sudarsana Reddy	114	Kesari, Krishna Reddy	109, 110
Kadri, Hachem	82	Kethireddy, Rashmi.....	114

Khalid, Faiq	58, 110	Kong, Wenping	65
Khalid, Majdi.....	62	Koprinkova-Hristova, Petia	103
Khan, Anik	97	Koprinska, Irena.....	27, 30, 113
Khan, Haroon	21	Korhonen, Topi	23
Khan, Kallin	97	Korycki, Lukasz.....	22
Khan, Muhammad.....	21, 63	Korytkowski, Marcin.....	22
Khan, Naimul.....	97	Kosko, Bart	80
Khan, Tariq.....	14, 21, 63, 93	Kot, Estera	53
Khan, Wasiq.....	60, 89	Kotagiri, Ramamohanarao.....	38
Kharlova, Elizaveta	108	Kottke, Daniel.....	9
Khatami, Amin.....	22	Koundouras, S.	11
Kherchouche, Anouar	44	Kouppas, Christos.....	55
Khiari, Jihed	113	Kowalski, Piotr	26
Khokhlov, Igor	52	Kozik, Rafal.....	22, 58
Khong, Andy W. H.....	55, 56	Kozma, Robert.....	32, 61
Khorkin, Alexey	49	Kralev, Velin.....	103
Khorshed, Tarek.....	53	Kraleva, Radoslava.....	103
Khosravi, Abbas	10, 42, 89	Kramer, Oliver.....	91, 94
Khowja, Muhammad Raza	71	Kraus, Vivien.....	92
Khuat, Thanh Tung	74	Krause, Andreas	29
Khurana, Sameer	66	Krawczyk, Bartosz	22
Khurana, Udayan	80	Krawczyk, Zuzanna.....	45, 53
Khushi, Matloob	17, 80, 88	Kreutz, Marcio Eduardo	70
Kibatu, Tewodros	72	Krichmar, Jeffrey.....	16, 33, 39
Kim, Daehyun.....	81	Kristopher, Jung.....	37
Kim, Daeyoung.....	25	Krohling, Breno	27
Kim, June-Woo.....	41	Krohling, Renato A.....	27, 113
Kim, Sangwook	23, 51	Kryszkiewicz, Marzena	32
Kimchi, Ruth.....	81	Ksieniewicz, Pawel	22
King, Mark	55	Kubasiak, Szymon	26
Kiran, Madhu.....	106	Kubota, Naoyuki.....	82
Kiringa, Iluju	90	Kucuk, Muhammed.....	55
Kirkland, Paul.....	98	Kuesters, Ferdinand.....	103
Kirley, Michael.....	89	Kulishova, Nonna.....	26
Kl 94		Kumar Jain, Deepak	22, 36
Klinck, Holger	23	Kumar, Akshi.....	43
Kloft, Marius	84	Kumar, Dinesh	88
Kluska, Jacek	115	Kumar, Nirman.....	97
Knight, Daniel.....	14	Kumar, Rathish	47
Kobayashi, Kohei	76	Kumar, Rishabh	62
Kobayashi, Masahiro.....	17	Kumar, Sandeep.....	73
Kobti, Ziad	93	Kumar, Suraj.....	56
Koc, Cetin.....	6	Kumar, Swagat	65
Kodogiannis, Vassilis	74	Kumar, Vaibhav	43
Koerich, Alessandro Lameiras	19, 30, 91	Kun, Wang	43
Koerich, Karl Michel	19	Kuncic, Zdenka	96
Koh, Yun Sing	93	Kuo, Nicholas I.H.	74
Kohlbreuner, Maximilian.....	40	Kuppa, Aditya.....	96
Kohlsdorf, Daniel.....	23	Kuramoto, Shiori	18
Kolling, Camila	35	Kurita, Takio.....	9, 28, 70
Kolossa, Dorothea.....	58	Kuroe, Yasuaki.....	52
Komendantskaya, Ekaterina	44	Kusy, Maciej.....	26, 115
Komninos, Alexandros	116	Kuzenkov, Oleg.....	38
Konar, Amit.....	17, 43	Kuzenkova, Galina.....	38
Koneva, Aleksandra	49	Kyriakidis, P.	11
Kong, Bin.....	100	Kyriazis, Nikolaos.....	32

L K P, Vignesh	57	Lele, Ashwin Sanjay	33
L. Cavalcante, Cesar.....	15	Lemoine, Hugo.....	39
L. I. Oliveira, Adriano.....	77	Lendasse, Amaury	97
L. Lobo, Jesus.....	30	Leng, Hongze.....	60
L. Manibardo, Eric.....	30	Lepagnot, Julien.....	59
Lacerda, Paulo	15	Lepak, Lukasz.....	93
Laha, Mousumi.....	17	Leroy, Axelle	109
Lai, Kenneth	28	Les, Tomasz	44, 45
Lai, Xiaoping	97	Levine, Daniel	4, 16, 89
Lai, Zhichen.....	47	Lewden, Pierre.....	33
Lakshmidivinivas, Devi.....	114	Lewis, Boyd.....	54
Lalande, Alain	87	Li Noce, Alessia	11
Lall, Brejesh	11	Li, Audeliano	112
Lambert, Schomaker.....	104	Li, Bairong.....	78, 91
Lameiras Koerich, Alessandro	19, 30, 91	Li, Bangwei	102
Lan, Kankan	65	Li, Beibei	34
Lan, Yu-ting.....	116	Li, Bin	40, 61, 62
Lana, Ibai.....	30	Li, Binjing	72
Lancucki, Adrian.....	66	Li, Bo	17, 41, 48
Landge, Shruti.....	109	Li, Boming	57
Lang, Kuijun	104	Li, Boxin	115
Lansner, Anders	11	Li, Chen.....	34, 48, 77, 110
Lapuschkin, Sebastian	40	Li, Dagang.....	84
Larijani, Hadi	10, 24	Li, Dan.....	24
Laroca, Rayson	12	Li, Di.....	92
Latham, Annabel	38	Li, En	94
Lau, Jey Han	60	Li, Furong.....	45
Laurent, Antoine.....	66	Li, Gang	73
Lazzerini, Beatrice.....	105	Li, Hai	18
Le, Thao Minh	13	Li, Haitao	90
Le, Trung	15, 108, 114	Li, Hao.....	20, 58
Le, Tue	108	Li, Haoran	67
Le, Vuong	13	Li, Hepeng.....	84
Leandro, Coelho.....	46	Li, Hongmin.....	38
Leckie, Christopher	38, 44, 64	Li, Hongming.....	24
Lee, Edward	81	Li, HongZheng	19
Lee, Jaeyoung.....	61	Li, Huan.....	108
Lee, Jia-Hong.....	14	Li, Huifang.....	42
Lee, Keuntek.....	58	Li, Huiyu	107
Lee, Minh.....	4, 41, 54	Li, Jean	15
Lee, Miyoung.....	21	Li, Jiachen.....	56
Lee, Mong Li	55	Li, Jiasen	26
Lee, Tih-Shih.....	116	Li, Jili	97
Lee, Ying Yang.....	73	Li, Jing.....	79, 86, 111
Lefort, Mathieu	40	Li, Jinglin	12
Lehmann, Jens.....	7	Li, Jinpeng.....	20, 55, 107
Lei, Fang	24	Li, Jiwei	40
Lei, Haopeng.....	59	Li, Jun	18, 26, 72, 79, 114
Lei, Jia	75	Li, Junde	81
Lei, Mingjian	65	Li, Junhui.....	56
Lei, Tong	90	Li, Keqiyin	75
Lei, Xing	93	Li, Li	18, 26, 64, 99
Lei, Yi	105	Li, Linjing.....	94
Lei, Zhen	92	Li, Lusi.....	84
Leite, Niago	7	Li, Mei	24, 31
Le-Khac, Nhien-An.....	96	Li, Mengshi.....	71

Li, Miao.....	76	Li, Zhihan	78
Li, Min.....	70	Li, Zhixin.....	80, 92, 106
Li, Ming.....	85	Li, Zhoujun	35
Li, Mingming.....	64	Li, Ziqiang	30, 45, 96
Li, Mingyang.....	100	Lian, Guan	57
Li, Naiqi	63	Liang, Feng.....	64
Li, Nan	100	Liang, Qi.....	115
Li, Nannan	67	Liang, Tao.....	13
Li, Pengfei	28	Liang, Xinyue	6
Li, Ping	108, 112	Liang, Yi	65
Li, Pu	23	Liang, Yongyuan.....	102
Li, Qing.....	92	Liang, Yuxuan.....	78
Li, Qingjiang	40	Liang, Zize	94
Li, Quanfeng.....	59	Liao, Fanshu	59
Li, Quangang.....	106	Liao, Huchang.....	45
Li, Rongchun.....	92	Liao, Jun	18, 26
Li, Rui	9, 57	Liao, Quanyu.....	100
Li, Ruitong	68	Liao, Yong.....	12
Li, Ruixuan	47	Ligade, Ninad.....	52
Li, Shijian.....	54	Lim, Bryan.....	87
Li, Shuwei.....	57	Lim, Kart-Leong	78
Li, Si	39	Lim, Lecia Kai Heng.....	73
Li, Tenghui.....	20	Lim, Ye-Sheen	72
Li, Weimin.....	111	Lima, Douglas	92
Li, Weiping.....	115	Lin, Chen.....	77
Li, Weiwei.....	62	Lin, Chih-Min.....	59
Li, Wenjie.....	57	Lin, Chin-Teng	38, 93
Li, Wenxi.....	55	Lin, Jiayin	99
Li, Xiali.....	41	Lin, Jinlong.....	111
Li, Xiang	106	Lin, Jun	72
Li, Xiaodong	10	Lin, Juncong.....	59
Li, Xiaoxiao.....	41	Lin, Wang.....	16
Li, Xiaoyan.....	90	Lin, Xin	56
Li, Xiaoyong	47, 65	Lin, Yang.....	113
Li, Xin	43, 46, 56, 75, 107	Lin, Ying.....	79
Li, Xu	47	Lin, Zhiping	94, 97, 108
Li, Xueyang	84	Lin, Zhiwei.....	42
Li, Yan	57, 112	Lindsay, James	9
Li, Yangyang.....	48	Ling, Hefei.....	35, 108
Li, Yanxiong	59	Linger, Richard.....	16
Li, Yanzeng	7	Lio, Pietro.....	61
Li, Yifeng	80, 81, 90	Lira Neto, Aloisio V.	55
Li, Yilin.....	78	Liu, Aizhi	94
Li, Yiming.....	63	Liu, Benyuan.....	8, 87, 112
Li, Ying	8, 79, 92	Liu, Bin	62
Li, Yongling	90	Liu, Bo.....	41
Li, Yubai	13	Liu, Chaochao.....	108
Li, Yuhua	47	Liu, Cheng-Lin.....	34
Li, Yuling.....	85	Liu, Chengyu.....	7
Li, Yun	42	Liu, Dayiheng	19
Li, Yundong.....	77	Liu, Dong.....	99
Li, Yunfeng.....	65	Liu, Dongfang.....	19, 42
Li, Yushuo	108	Liu, Feifei	7
Li, Zhen	52, 67	Liu, Feng.....	46
Li, Zheng	8, 40, 42	Liu, Frank.....	8
Li, Zhenzhen	52	Liu, Gongshen.....	12, 94

Liu, Guiquan.....	64	Liu, Zhengshang.....	85
Liu, Guohua.....	67	Liu, Ziang.....	23
Liu, Haijun.....	40	Liu, Zijun.....	115
Liu, Haiyang.....	58	Liwicki, Foteini.....	33
Liu, Hao.....	58	Liwicki, Marcus.....	36
Liu, Heng.....	104	Llofriu, Martin.....	39
Liu, Honghai.....	76	Lo Giudice, Michele.....	36
Liu, Hongxing.....	41	Loeffler, Alon.....	96
Liu, Jia.....	6	Loiacono, Daniele.....	15
Liu, Jiajia.....	48	Lomuscio, Alessio.....	100
Liu, Jian.....	24, 32	Londono Kallewaard, Juanita.....	36
Liu, Jin.....	13	Lones, Michael.....	44
Liu, Jing.....	79, 86	Long, Chen.....	90
Liu, Jinxin.....	56	Long, Guodong.....	56
Liu, Kai.....	17	Long, Yun.....	81
Liu, Li.....	18, 26	Longjun, Liu.....	102
Liu, Lihao.....	84	Loo, Chu.....	82
Liu, Limengwei.....	65	Loo, Chu Kiong.....	82
Liu, Lu.....	56	Lopes Junior, Celso A. M. L.....	80
Liu, Mei.....	24	Lopes, Guilherme.....	98
Liu, Minsong.....	67	Lorent, Malgorzata.....	44
Liu, Nana.....	45	Losing, Viktor.....	60
Liu, Peiyang.....	78	Lotfi, Ahmad.....	83
Liu, Peiye.....	81	Louppe, Gilles.....	54
Liu, Ping.....	112	Loureiro, Luiz Lannes.....	15
Liu, Rui.....	9	Louzeiros Rodrigues, Alexandre.....	48
Liu, Ruijiao.....	48	Lourenco de Freitas Junior, Waldyr.....	77
Liu, Shuo.....	67	Lozano, Jose Antonio.....	29
Liu, Sida.....	10	Lu, Bao-Liang.....	17, 116
Liu, Sihong.....	115	Lu, Jiawei.....	12
Liu, Sijia.....	80	Lu, Jie.....	34, 74, 75
Liu, Tingwen.....	7, 36, 106, 115	Lu, John Jianan.....	73
Liu, Wei.....	12, 43, 116	Lu, Lu.....	35
Liu, Weidong.....	43	Lu, Siyuan.....	72
Liu, Weihua.....	107	Lu, Steven.....	34
Liu, Wen.....	90	Lu, Wei.....	35, 73
Liu, Wu.....	81	Lu, Wenjie.....	12
Liu, Xiabi.....	107, 108	Lu, Xiaobo.....	57
Liu, Xiaobai.....	23	Lu, Xuequan.....	114
Liu, Xiaobo.....	97	Lu, Yifeng.....	45
Liu, Xin.....	43	Lubman, Dan.....	112
Liu, Xiuwen.....	29, 51, 77, 97, 108	Luca, Verderame.....	68
Liu, Yanbing.....	20, 55	Lucena, Ellen.....	7
Liu, Yanwei.....	42	Lucieri, Adriano.....	49
Liu, Ye.....	78	Ludermir, Teresa.....	102
Liu, Yi.....	13	Ludwig, Robert.....	97
Liu, Yi-Ling.....	100	Luebbering, Max.....	54
Liu, Yiping.....	82	Lukasik, Szymon.....	26
Liu, Yuan.....	99, 108	Lukovic, Slobodan.....	99
Liu, Yuanpei.....	108	Luo, Bin.....	34
Liu, Yuntao.....	92	Luo, Da.....	63
Liu, Yuqiao.....	59	Luo, Dan.....	115
Liu, Yusen.....	19	Luo, Fangzhou.....	100
Liu, Zhe.....	12	Luo, Fengji.....	106
Liu, Zhen.....	67	Luo, Guoliang.....	59
Liu, Zheng.....	40, 42	Luo, Hao.....	26

Luo, Jia.....	106	Majumdar, Angshul.....	72
Luo, Li.....	100	Majumder, Anima.....	65
Luo, Wei.....	73	Makihara, Yasushi.....	39
Luo, Wenjian.....	56	Malialis, Kleanthis.....	60
Luo, Xiao.....	78	Malik, Ali.....	68
Luo, Yan.....	8	Malik, Muhammad.....	21
Luo, Yin-Jyun.....	11	Malik, Muhammad Imran.....	21, 49
Lv, Chengguo.....	42	Mamalis, S.....	11
Lv, Jiancheng.....	19, 47, 51, 74	Mammone, Nadia.....	36, 37
Lynch, Conor.....	16	Manchukonda, Harish Kumar.....	35, 86
Lynch, David.....	87	Mandana, Kayapanda Muthana.....	8
Lytridis, C.....	11	Mandic, Danilo.....	27
Lyu, Lingjuan.....	44	Manevitz, Larry.....	81, 82
Lyu, Siwei.....	100	Mani Tripathi, Achyut.....	29, 31
M. Javid, Alireza.....	6	Manios, M.....	11
M. O. Cruz, Rafael.....	106	Maniu, Silviu.....	16
M. Paixao, Thiago.....	12	Mansoor, Muhammad.....	72
M. Souza, Douglas.....	47	Manton, Jonathan.....	6
Ma, Huadong.....	81	Mao, Jiafa.....	12
Ma, Huifang.....	80, 92, 106	Mao, Kezhi.....	28
Ma, Junfeng.....	86	Mao, Xiangke.....	79
Ma, Lu.....	115	Mao, Xudong.....	92
Ma, Shuai.....	79	Maoguo, Gong.....	21
Ma, Tao.....	72	Marchetti, Francesco.....	76
Ma, Wenchao.....	18	Marchisio, Alberto.....	21, 33, 105, 110
Ma, Xiaohong.....	107	Marcon, Matheus.....	13
Ma, Xiyang.....	25	Mariani, Viviana Cocco.....	57, 113
Ma, Ying.....	24, 90	Marino, Laura.....	18
Ma, Yun.....	92	Markiewicz, Tomasz.....	44
MacDonald, Michael.....	87	Marques da Silva, Matheus Henrique.....	80
Macedo, David.....	40, 46, 66, 77	Marques Peres, Sarajane.....	77
Macedo, Jose.....	47	Marra, Giuseppe.....	110
Macedo, Jose A. F.....	55	Marrone, Stefano.....	37
Macedo, Jose Antonio.....	38	Martel, Felix.....	8
Machado, Adriano.....	72	Marthie, Grobler.....	68
Machado, Javam.....	79	Marti, Eliane.....	14
Machingal, Pranav.....	102	Martin, Kyle.....	100
Maciag, Piotr S.....	32	Martina, Maurizio.....	21, 33, 105, 110
Macias-Garcia, Edgar.....	109	Martinelli, Fabio.....	37
Maciaszek, Adam.....	26	Martinez, Thomas.....	11
Maciel-Guerra, Alexandre.....	14	Martinez-Villasenor, Lourdes.....	29
Madany Mamlouk, Amir.....	69	Martino, Alessio.....	7, 53, 64
Madeiro, Joao Paulo.....	26	Martins, Miguel Sousa Esteves.....	98
Madeo, Renata.....	71	Martinsson, Torbjorn.....	79
Madonna, Vincenzo.....	71	Marulli, Fiammetta.....	37
Maeda, Yutaka.....	52	Marullo, Simone.....	109
Magallon, Daniel.....	17	Marxer, Ricard.....	23, 66
Maggi, Fabrizio Maria.....	93	Masera, Guido.....	21
Maggini, Marco.....	110	Mashrur, Akib.....	73
Magid, Evgeni.....	61	Maskeliunas, Rytis.....	15
Mahmud, Md Sultan.....	79, 83	Massa, Riccardo.....	33
Mahmud, Mufti.....	5, 77, 83, 111	Masseroli, Marco.....	53
Maia, Jose.....	47	Massie, Stewart.....	29
Maia, Jose G. R.....	55	Mastelini, Saulo Martiello.....	93
Mainardi, Luca.....	15	Mastorocostas, Paris.....	25
Majoe, Dennis.....	55	Masuyama, Naoki.....	82

Matei, Basarab	46	Mercaldo, Francesco	14, 37
Mateu, Carles	51	Mercier, Dominique	103
Mathew, Alwyn	88	Merou, T.	11
Mathew, Jimson	88	Mertins, Afred	50
Mathur, Gaurav	13	Mesquita, Caio Mario	57
Matich, George	98	Meyer, Bruno	19
Matos, Jonathan de	30	Meyer, Charly	33
Matsubara, Takashi	77	Mi, Xiaomei	45
Matsui, Nobuyuki	52	Miao, Chunyan	19
Matsuki, Toshitaka	86	Michael, Marefat	37
Mattos, Cesar	26	Michele, Donini	24
Mattos, Cesar Lincoln	38	Micheli, Alessio	7
Matwin, Stan	101	Miconi, Thomas	51
Maurer, Karsten	23	Migebielle, Veronique	101
May, Daniel	108	Miglianti, Leonardo	80
Mazumder, Pratik	8	Miguel Pinto, Alexandre	81
McAllister, Richard	11	Miguel Varejao, Flavio	48
McCane, Brendan	82	Mihaylova, Lyudmila	105
McCann, Gerry	50	Milios, Evangelos	92
McCreadie, Karl	83	Mimilakis, Stylianos Ioannis	59
McDaid, Liam	9	Min, Chen	69
McDonnell, Mark D.	41	Min, Yanze	39
McGinnity, T.M.	111	Minai, Ali	39, 89
McGuigan, Matthew	28	Ming, Li	105
McGuinness, Kevin	69	Ming, Liangjie	88
McLoughlin, Ian	50	Ming, Zhong	64
McNaughton, Neil	82	Mingfei, Lu	93
McWhinnie, James	70	Ming-Hsuan, Yang	65
Medeiros, Aldisio	47, 50	Ming-Lai, Lin	18
Medeiros, Heitor	96	Minhas, Fayyaz ul Amir Afsar	25
Medjram, Sofiane	92	Minisci, Edmondo	76
Megyeri, Istvan	20	Minku, Leandro	93
Mehnen, Jorn	105	Mio, Washington	77
Mehta, Rahul	7	Miramond, Benoit	32
Meir, Shai	62	Mirkes, Evgeny M.	38
Melacci, Stefano	31, 109, 110	Mirus, Florian	17, 98
Mencar, Corrado	6	Mishra, Aakansha	19
Mendelson, Avi	35	Mishra, Saumitra	103
Mendes, Andre	46	Mistry, Kamlesh	36, 72
Mendonca, Marcelo	48	Mitchell, J. Parker	33, 103
Meneguzzi, Felipe	13, 102	Mitchell, Jeff	46
Meng, Cao	64	Mitchell, John	42, 74
Meng, ChenYing	79	Mitchell, Rory	31
Meng, Fanlin	45	Mitsuno, Kakeru	28
Meng, Guanglei	104	Miyao, Junichi	28, 70
Meng, Kui	12	Miyao, Jyunichi	9
Meng, Lei	107	Miyapuram, Krishna	101
Meng, Mingyuan	32	Miyapuram, Krishna Prasad	101
Meng, Qinggang	55	Mo, Jingjie	78
Meng, Xi	105	Mo, Tong	115
Meng, Xiangxu	107	MoemeniYang, Armaghan	53
Meng, Yunlong	75	Moghadam, Rohollah	76
Mengjie, Zhang	85	Mohacsi, Mate	101
Menis - Mastromichalakis, Orfeas	98	Mohanta, Jayant Kumar	61
Menotti, David	12	Mohanty, Debi	18
Menzel, Stefan	58, 112	Moharana, Sukumar	18

Moioli, Renan Cipriano.....	37	Nahavandi, Darius.....	89
Mojarad, Roghayeh.....	80	Nahavandi, Saeid.....	22, 42, 89
Mokuwe, Mamuku.....	108	Najgebauer, Patryk.....	90
Molek, Wojtech.....	28	Nakada, Hidemoto.....	55
Moly, Alexandre.....	8	Nakai, Kohei.....	77
Mongelluzzo, Alessio.....	67	Nakajima, Shinichi.....	40
Moniri, Mansour.....	66	Nakane, Ryosho.....	30
Montague, Paul.....	44, 108	Nakano, Takeru.....	76
Monteiro, Juarez.....	102	Nakasan, Chawanat.....	55
Monteiro, Marianne.....	84	Nakayama, Tomonobu.....	96
Montenegro, Cesar.....	29	Namboodiri, Vinay P.....	8, 100
Montiel, Jacob.....	31, 93	Nan, Zhixiong.....	61
Montufar, Guido.....	43	Nandi, Arijit.....	10
Morabito, Francesco Carlo.....	36, 37	Nandy, Anup.....	36
Moradpoor, Naghmeh.....	70	Nandy, Jay.....	55
Moraes, Gabriel.....	75	Nanfa, Giorgio.....	110
Moraes, Joao.....	71	Nankani, Deepankar.....	107
Morales, Theo.....	82	Nanning, Zheng.....	93, 102
Moran, Alejandro.....	96	Naqvi, Syed.....	21, 63
Moran, Antonio.....	42	Narayanan Sundararaman, Mukuntha.....	46
Moreira, Danilo Coura.....	107	Naseem, Usman.....	22, 28
Moreira, Johny.....	46	Nassar, Lobna.....	47
Moreno-Garcia, Carlos Francisco.....	48, 100	Natarajan, Bharatram.....	13
Morfin, Onofre.....	17	Natarajan, Pappa.....	76
Morozov, Andrew.....	38	Natsuaki, Ryo.....	52
Moudache, Salim.....	39	Naud, Richard.....	81
Moustafa, Mohamed N.....	53	Naya-Varela, Martin.....	110
Moustafa, Nour.....	83	Nayyeri, Mojtaba.....	7
Moutafis, Christoforos.....	110	Naz, Saeed.....	49
Moya-Albor, Ernesto.....	23	Naz, Saeeda.....	14, 36
Mozafari, Milad.....	8	Naz, Seeda.....	21
Mozart, Anderson.....	75	Nazari, Asef.....	22
Mtetwa, Nhamoinesu.....	10	Nebot, Eduardo.....	110
Mtope, Franck Romuald Fotso.....	90	Nedelcheva, Simona.....	103
Muhammad, Khan.....	21	Neftci, Emre.....	116
Muhuri, Pranab K.....	73	Neo, Phoebe.....	82
Mukesh, Prasad.....	22	Neruda, Roman.....	46
Mukherjee, Arijit.....	33, 103	Neumeier, Wolfgang.....	21
Mukhopadhyay, Saibal.....	81, 88	Neves Junior, Ricardo Batista.....	66
Muller, Pierre-Alain.....	59	Newcomb, Robert.....	109
Mumtaz, Sara.....	19	Ng, Weichong.....	94
Munjaj, Prateek.....	56	Ng, Wing W. Y.....	63
Muqhlisah, Muhamad.....	60	Ngo, Quang Minh.....	85
Murakami, Noriyuki.....	23	Nguyen, Binh Minh.....	85
Murilo Gomes, Heitor.....	16, 93	Nguyen, Hung.....	79
Murino, Vittorio.....	82	Nguyen, Khanh.....	108
Murphy, Timothy H.....	109	Nguyen, Khoa L.D.....	111
Musial, Katarzyna.....	22, 28	Nguyen, Phi Le.....	85
Musilek, Petr.....	108	Nguyen, Thanh Thi.....	22, 104
Mussetta, Marco.....	72	Nguyen, Tung.....	79
Mustafina, Jamila.....	60	Nguyen, Van.....	108
Mutz, Filipe.....	75	Nguyen-Meidine, Le Thanh.....	106
Naderi, Habibeh.....	101	NhatHai, Phan.....	103
Nagai, Masao.....	42	Ni, Bin.....	18
Nagar, Atulya K.....	17, 43	Ni, Jing.....	112
Nagpal, Sidhant.....	15	Ni, Zhen.....	84

Nicodemou, Vassilis - Clitos.....	88	Oliveira-Santos, Thiago	12, 75
Nicola, Victor	71	O'Neill, Michael	87
Nicolas, Sebastien	86	Oneto, Luca	24, 80, 93
Nicole, Hallett	27	Opara, Chidimma.....	107
Nigam, Aditya.....	47, 56	Oppenheim, Georges	101
Nigri, Eduardo	87	Orjuela-Canon, Alvaro David.....	30
Nikolic, Ljubomir	45	Orlinski, Marek	24
Nikovski, Daniel.....	34	Orojo, Oluwatamilore	111
Nilsson, Mattias	33	Ortego, Diego.....	69
Ning, Yue.....	31	Ortiz-Monasterio, Pedro.....	35
Nishikawa, Ikuko	107	O'Shea, James	89
Nishimura, Haruhiko.....	52	Osipov, Grigory	49
Nistala, Sri Harsha	57	Osorio, Javier.....	79
Niu, Jun	35	Osowska-Kurczab, Aleksandra.....	44
Nobile, Marco S.....	98	Osowski, Stanislaw	44, 45, 52, 72
Nobuhara, Hajime	48	Ouarbya, Lahcen	102
Noguti, Mariana Y.	112	Ouyang, Kun	78
Nojima, Yusuke	82	Ouyang, Linshu.....	106
Nollet, Bastien	40	Ouyang, Ye	71
Norbert, Jankowski.....	24	Ouyang, Yuanxin	46
Nosal, Eva-Marie.....	23	Ovechkina, Anna.....	44
Nossier, Soha A.	66	Ozawa, Seiichi	4, 23, 51
Novoa-Paradela, David.....	31	P. da Silva, Suane Pires	15, 105
Nowak, Jakub.....	22	Paassen, Benjamin	30
Ntritsos, Georgios	97	Pacheco, Andre G. C.....	113
Nudo, Randolph	83	Pacheco, Andre G.C.....	27
Nugent, Chris D.....	63	Pacheco, Sofia.....	29
Nunes, Virginia	50	Pachidis, T.	11
Nunes, Virginia X.	15	Padiolleau, Guillaume	38
Nunez, Luis Miguel.....	103	Pal, Arpan	33, 107
Nunez-Martinez, Jose	29	Palade, Vasile	15, 51
O Leary, Christian	16	Palafox, Leon	35
Obo, Takenori	76	Palaniappan, Ramaswamy	50
Ochiai, Hideya	25	Palanisamy, Praveen	104
O'Connor, Noel E.	69	Palmer, K.	23
Oehmcke, Stefan	94	Palomo, Esteban J.....	88
Oh, Byungsoo	25	Paludo Licks, Gabriel.....	13
Ohata, Elene Firmeza	68, 105	Pamplona, Edson.....	112
Ohkawa, Takenao	23	Pan, Cheng.....	72
Ohta, Nozomu	48	Pan, Fucheng.....	102
Oikonomidis, Iason.....	32, 88	Pan, Gang.....	54
Ojeda, Cesar	66	Pan, Hong.....	45, 48
O'Keefe, Simon	116	Pan, Weike.....	64
Oki, Hideki	9	Panayiotou, Christos G.	60
Okwuchi, Ifeanyi.....	47	Panda, Amrut Sekhar	41
O'Leary, Stephen	28, 99	Panda, Priyadarshini.....	81, 109, 110
Oliehoek, Frans A.	63	Pandey, Pankaj.....	101
Oliveira Santos, Thiago.....	48	Panella, Massimo.....	30
Oliveira, Adriano.....	40	Pang, Guochen	10
Oliveira, Arthur	7	Pang, Sheng Wei.....	74
Oliveira, Chaina.....	46	Pankajakshan, Vinod	28
Oliveira, Luciano	24, 48	Papa, Joao.....	24, 48
Oliveira, Luiz E. S.....	34	Papakostas, G. A.	11
Oliveira, Luiz S.	112	Papasimeon, Michael	15
Oliveira, Renato	57	Papetti, Daniele M.....	98
Oliveira, Samuel da Silva	70	Paradiso, Joseph	59

Paraiso, Emerson.....	68	Petropoulakis, Lykourgos	98
Parente, Regina R.....	70	Pfahringner, Bernhard	31, 93
Paresh, Spoorthy	72	Pham Minh, Tuan.....	9
Paris, Sebastien	23	Pham, Lam.....	50
Park, Jeon Gue	41	Phan, Huy	50
Parsa, Maryam.....	33, 102, 103	Phung, Dinh	15, 108, 114
Paseddula, Chandrasekhar.....	19	Phung, Lai.....	103
Pasero, Eros	29, 37	Phyo Wai, Aung Aung.....	76, 116
Patane', Luca	11	Piao, Haiyin.....	104
Patel, Devdhar	61	Piecuch, Mateusz.....	26
Patel, Raj.....	114	Pietquin, Olivier.....	86
Pathak, Sudhir K	47	Pillay, Nelishia.....	94
Pathiravasam, Chirath.....	80	Pimentel, Jhielson Montino.....	37
Patra, Aditya Prakash	43	Pimentel, Tiago	84, 101
Patton, Robert	33, 103	Pinakin, Artem.....	44
Paul, Akanksha	56	Pinhanez, Claudio.....	74
Paul, Siebert.....	54	Pinto, Joao Ribeiro.....	83
Paulus, Paul	89	Pistolesi, Francesco.....	105
Paviglianiti, Annunziata	29	Pistori, Hemerson	13
Pawlicki, Marek	58	Pitti, Alexandre.....	54, 101
Payrovnaziri, Seyedeh Neelufar	97	Piumbini, Marcos	75
Pecori, Riccardo.....	14, 67	Planes, Jordi	51
Pedapati, Tejaswini.....	80	Plank, James	33, 42, 74
Pedrelli, Luca	30	Plested, Jo	7
Pedrycz, Witold	63	Po{\l}ap, Dawid	92
Pei, Dan.....	78	Podkorytov, Maksim.....	29
Pei, Haolei.....	43, 48	Polikar, Robi.....	44
Pelka, Pawel	29	Poline, Jean-Baptiste	109
Pellegrini Ribeiro, Marcos	48	Polycarpou, Marios M.	16, 60
Peng, Chao	100	Pommier, Thibaut.....	87
Peng, Jia	70, 78	Ponce, Hiram	23, 29
Peng, Jizhi.....	61	Ponnambalam, Kumaraswamy	47
Peng, Min	68	Pontil, Massimiliano	24
Peng, Silong.....	40	Pooch, Eduardo Henrique Pais	48
Peng, Xuanqi.....	104	Portinari, Joao Candido	65
Peng, Yameng	39	Potok, Thomas.....	33
Peng, Yiming.....	85	Potok, Thomas E.	103
Peng, Yonghong	14	Poupard, Marion	23
Peng, Yuxing.....	46	Pozo, Aurora	19
Peng, Zhiping	24	Pradhan, Abhishek.....	64
Pengcheng, Liao	55	Prakash, Ravi.....	41, 61
Penninckx, Denis	38	Prasad, Dilip K.	74
Pereira Rodrigues, Pedro.....	64	Prasad, Girijesh	83
Pereira, Adriano	57	Prasad, Mukesh	14, 20, 22, 28, 36, 49, 94
Pereira, Eanes	7	Prasad, Vignesh.....	78
Pereira, Eanes Torres	107	Prashanth, Tejas.....	25
Pereira, Francisco.....	79	Pratama, Mahardhika	57
Pereira, Jherson Haryson Almeida	18	Pratama, Muhammad Taufiq	23
Peres, Sarajane	71	Prellberg, Jonas	91
Perino, Lorenzo.....	53	Pretorius, Kyle.....	94
Perrot, Gilles	87	Preux, Philippe.....	86
Pessin, Gustavo	34	Prieto, Abraham	110
Peter, Almasi.....	104	Principe, Jose	16, 24
Petersen, Thorben	94	Principi, Emanuele	58, 59, 66
Petieau, Mathieu	109	Pritchard, David	99
Petitjean, Francois	71	Prochazka, Stepan.....	46

Prokhorchuk, Anatolii	84	Rakhshani, Hojjat.....	59
Protasiewicz, Jaroslaw	72	Rakshit, Pratyusha.....	17
Prudencio, Ricardo.....	71	Ram, Parikshit.....	80
Prudencio, Ricardo B. C.....	70	Ramachandran, Ravi	105
Pu, Yuan.....	61	Ramamohanarao, Kotagiri.....	28, 64, 85, 99
Pu, Zhiqiang	67	Ramamurthy, Rajkumar	54
Pugdeethosapol, Krittaphat.....	53	Ramapuram, Jason.....	13
Purgal, Stanislaw	48	Ramaswamy, Akshaya	21, 62
Purre, Naresh.....	18	Ramos, Gabriel de Oliveira.....	85
Purushothaman, Balamurali.....	21	Ramteke, Rishabh	38
Purushothaman, Balamuralidhar	62	Rana, Mashud.....	113
Qi, Fengliang.....	75	Rana, Santu	85
Qi, Huang	34	Randazzo, Vincenzo	29, 37
Qi, Jianzhong	64	Rangwala, Huzefa.....	31
Qi, Yangjie.....	81	Rani, Smriti	33
Qian, Li.....	86	Ranieri, Caetano Mazzoni	29, 37
Qian, Tangwen.....	65	Rao, Annavarapu Chandra Sekhara.....	65
Qiang, Yao	107	Rashid, Syed Md. Mukit.....	94
Qiang, Yuting	66	Rasmussen, Lars K.....	99
Qiao, Junfei	105	Rasool, Ghulam	104, 105
Qiao, Wenbo	43	Rasoolijaberi, Maral	27
Qin, A. K.	45, 48, 49	Rasouli, Peyman.....	103
Qin, Ding	18	Rast, Alexander	33
Qin, Tianqi.....	111	Rathore, Pradeep.....	57
Qin, Zheng.....	101	Ratner, Edward	97
Qinru, Qiu	98	Ravichandran, Jensun	63
Qiu, Binbin.....	10, 88	Ravichandran, Naresh Balaji	11
Qiu, Jianfeng	57	Rawat, Ambrish.....	80
Qiu, Qinru	53, 75, 98	Ray, Indrakshi	62
Qu, Bohao	104	Raychowdhury, Arijit	33
Qu, Xinghua	109	Raza, Haider	111, 112
Qu, Yanwen	40	Razavi-Far, Roozbeh	115
Quan, Limin	105	Razzak, Imran.....	14, 21, 28, 94
Quan, Yu	106	Re, Tania	89
Quek, Chai	74	Reboucas Filho, P. Pedrosa	15
Querlioz, Damien	56	Reboucas Filho, Pedro	50
Quiles, Marcos	99	Reboucas Filho, Pedro Pedrosa.....	15, 68, 105
Quinten, Moesen.....	88	Reddy, Leila	8
Quintero-Rincon, Antonio.....	71	Reggia, James	46
Quispe Torres, Manuel Alejandro	97	Reginelli, Alfonso	14
Quoy, Mathias	54	Rego, Paulo	47
Qureshi, Ayyaz-Ul-Haq	10, 24	Rego, Paulo A. L.....	55
Radhakrishnan, Venkatesh Babu	62	Rehman, Semeen.....	58
Rafea, Ahmed	53	Rehmani, Mubashir Husain	37
Raghavan, Krishnan.....	76	Reilly, Denis	10
Raghavan, Vijay	70	Reinaldo, Jessica.....	71
Raghunathan, Anand	81	Reis, Joao Carlos Prata	98
Ragunathan, Kumaran	93	Reis, Luis Paulo	41
Ragusa, Edoardo	5	Rekabdar, Banafsheh	100
Rahimi, Shahram	35, 86	Ren, Jiangtao.....	12, 61
Rahman, Ashfaqur	113	Ren, Peijia.....	45
Rahman, Jessica Sharmin	102	Rengasamy, Divish.....	75
Rahman, Nayim	33	Rengifo-Moreno, Pablo	97
Rai, Sujit.....	107	Resende, Vinicius Henrique	63
Raimundo, Marcos M.	31	Reyes, Esteban.....	39
Rajan, Prakash.....	101	Reyes, Mauricio	108

Reynoso-Meza, Gilberto	114	Rubinstein, Benjamin	44
Reznik, Leon	52	Rudny, Tomasz	46
Riasatian, Abtin	27	Ruff, Lukas	84
Riaz, Syeda Allena	21	Rui, Xu	107
Ribeiro, Bernardete	81	Ruiz Zuluaga, Maycol	36
Ribeiro, Matheus Henrique Dal Molin	57, 113	Ruiz, Marco	48
Riccardi, Annalisa	76	Ruiz-del-Solar, Javier	88
Richhariya, Bharat	14	Ruiz-Garcia, Ariel	14, 15, 51
Rill, Robert Adrian	94	Rungta, Mukund	62
Rinat, Khusainov	34	Runkana, Venkataramana	57
Rios, Thiago	58	Runkler, Thomas	99
Rivas-Posada, Eduardo	49	Ruoyu, Yang	18
Rivest, Francois	54	Russell, Gordon	70
Rizvi, Baqar	36, 72	Russello, Giovanni	93
Rizzi, Antonello	7, 53, 56, 63, 64	Russo, Andrea G.	36
Robert, Moni	104	Rutkowski, Leszek	90
Roberts, Stephen	87	Rzonsowski, Piotr	68
Robinson, Neethu	116	S Dhavala, Soma	25
Robles-Durazno, Andres	70	S. Almeida, Jefferson	15
Robles-Kelly, Antonio	73	S. Cardoso, Jaime	51, 83
Roca, Miquel	96	S. Paulucio, Leonardo	12
Roch, Marie	23	S.N., Balakrishnan	114
Rocha, Filipe	34	Saad, Muhammad	47
Rocha, Nazareth	15	Saada, Mohamad	55
Rodrigues Moreno, Sinvaldo	113	Sabatelli, Matthia	54, 86
Rodrigues, Walber	40	Saboundji, Rachid Rhyad	94
Rodriguez, Carlos	19	Sabourin, Robert	34, 106
Roig, Gemma	11	Saha, Priyabrata	81
Roisenberg, Mauro	56	Saha, Snehanshu	25, 53
Romdhane, Rim	47	Saha, Sriparna	28, 43, 53, 104
Romero, Alejandro	110	Saha, Subir Kumar	61
Romero, Enrique	103	Saha, Tulika	43, 104
Romero, Roseli Aparecida Francelin	29, 37	Sahonero-Alvarez, Guillermo	49
Rong, Wenge	46	Saif, Mehrdad	115
Rook, Chris	36	Saighi, Sylvain	33
Rosato, Antonello	30	Saikh, Tanik	58
Rose, Derek C.	103	Saito, Toshimichi	114
Rose, Garrett	33, 42, 74	Sakalle, Aditi	112
Rosenberg, Ishai	61, 62	Sakr, George	101
Rosenblum, David	78	Sakurai, Tetsuya	38
Rosendale, Glen	84	Salamat, Amirreza	78
Ross, Matt	6	Salehi, Ozlem	54
Rossello, Josep L.	96	Salim, Flora	42
Rothwell, Benjamin	75	Salman, Shaeke	77, 97
Rottmann, Matthias	89, 104	Salomon, Gabriel	12
Roveri, Manual	45	Salomon, Michel	87
Roveri, Manuel	67	Salvati, Daniele	66
Roy, Kaushik	103, 110	Salvi, Andrey de Aguiar	48
Roy, Priyankar	36	Samal, Kruttidipta	88
Roy, Sanjeev	18	Samanta, Subhrajit	57
Roy, Sourjya	81	Samek, Wojciech	40
Roy, Sujit	83	Samothrakis, Spyros	112
Royce, Chris	68	Samoylenko, Alexander	44
Roychowdhury, Shoumik	87	Samulowitz, Horst	80
Roychowdhury, Shounak	87	Sanchez, Guillaume	66
Rozi, Muhammad Fakhrur	51	Sanchez, Ramses	88

Sandin, Fredrik	33, 36, 58, 79	Sereda, Iana	49
Sang, Chin	6	Serrano, Will	17
Sang, Yongsheng	19, 51	Serrano-Rubio, Juan Pablo	68
Sanguthevar, Rajasekaran	19	Seth, Anil	86
Sangwan, Suyash	100	Seurin, Mathieu	86
Sani, Sadiq	100	Severa, William	103
Sanodiya, Rakesh	88	Severini, Marco	59
Santana, Maxwell Barbosa de	37	Sgouros, C.	11
Santana, Roberto	29	Sha, Lei	11
Santillan, Marvin	18	Sha, Luo	104
Santin, Altair	19	Shabalina, Ksenia	61
Santone, Antonella	14, 37	Shabtai, Asaf	20
Santos, Alexandre	47	Shadli, Shabah	82
Santos, Joao	108	Shafiei, Sobhan	91
Sanyal, Atish	64	Shafique, Muhammad	21, 33, 58, 105, 110
Saputra, Azhar Aulia	82	Shah, Sumeet	96
Sarabakha, Andriy	82	Shah, Syed Naveed Hussain	86
Saraswat, Vivek	109	Shahsavari, Mahyar	33
Saray, Sara	101	Shaikh, Azhar	53
Saunders, Daniel	32	Shalev, Hadar	81
Saval-Calvo, Marcelo	110	Shammas, Elie	101
Savchenko, Andrey	14, 110	Shams, Zohreh	61
Sawada, Hideyuki	18	Shandeelya, Arunav Pratap	28
Schaap, Dirk Jelle	86	Shang, Changjing	59
Scherer, Rafal	19, 22, 36, 90	Shang, Cheng	59
Schichtel, Peter	103	Shang, Yunkai	14
Schlicht, Peter	89, 104	Shanyu, Chen	68
Schmidt, Mischa	86	Shao, Kun	67
Schmitt, Ketra	101	Shao, Wei	42
Schoenherr, Lea	58	Shaoqing, Tan	18
Schuelke, Anett	86	Shariat Yazdi, Hamed	7
Schuller, Bjoern	67	Sharma, Charu	48
Schuman, Catherine	33, 42, 74, 102, 103	Sharma, Dharmendra	88
Schuman, Catherine D.	103	Sharma, Garima	116
Schumann, Johann	18	Sharma, Rahul	81
Schupbach, Jordan	89	Shaukat, Ghosia	14
Schwenker, Friedhelm	62	Shawel, Bethehem S.	58
Schymura, Christopher	58	Shawel, Bethelhem	72
Scleidorovich, Pablo	39	Shawe-Taylor, John	55, 61
Scott, Debbie	112	She, Xueyuan	81
Scott, Grant	109	Sheikh, Hassam ullah	104
Sechidis, Konstantinos	16	Shen, Jiakai	64
Sedwards, Sean	61	Shen, Jiangrong	32
Seidel Oliveira, Andre	75	Shen, Jun	27, 99
Seiler, Moritz Vinzent	105	Shen, Jundong	83
Seixas, Flavio	15	Shen, Lei	115
Sekerci, Alper	54	Shen, LinShan	79
Sellami, Akrem	82	Shen, Tiancheng	112
Sellis, Timos	48	Shen, Tianhao	12
Selvarajah, Kalyani	93	Sheng, Quan Z.	25, 26, 111
Selvarasu, Anbarasan	64	Sheng, Weiguo	12
Sendhoff, Bernhard	58, 112	Sheng, Zhonghao	17
Seo, Jae-sun	8	Shengke, Wang	90
Seok, Mingoo	81	Sheppard, John	11, 89, 96
Serafim, Paulo	47	Shi, Chen	11
Serafini, Giulia	34	Shi, Dianxi	91

Shi, Jia.....	85	Sinha, Toshi.....	6
Shi, Longxiang	54	Siqi, Qiu	105
Shi, Peng.....	116	Sisti, Sean.....	23
Shi, ShuMin.....	19	Sitaula, Chiranjibi.....	114
Shi, Yuxuan.....	35	Siwek, Krzysztof.....	53
Shi, Zhenhua.....	38	Skoglund, Mikael.....	6
Shibata, Katsunari.....	86	Sledge, Isaac	16
Shin, Duk.....	76	Slot, Krzysztof.....	91
Shirley, Ho.....	5	Smith, Darren.....	68
Shiu, Yu.....	23	Smith, Gary	16
Shmerko, Peter	27	Snow, Elijah	53
Shrestha, Amar	98	Soares, Felipe F.....	55
Shriki, Oren	49	Sofou, Natasa	98
Shrivastava, Shalini.....	11	Sommers, Alexander	35, 86
Shroff, Gautam.....	77	Sona, Diego	82
Shu, Xiaobo.....	7, 36, 106	Song, Chao	57
Shujian, Yu.....	22	Song, Junqiang	60
ShuJuan, Chen	114	Song, Mengnan.....	72
Shukla, Amit K.....	73	Song, Po	8
Shukla, Kaushal	71	Song, Qi	100
Siarry, Patrick.....	83	Sonia, Sonia.....	35
Siavalas, G.....	11	Soraghan, John.....	98
Sicard, Guillaume	62	Sousa Mello, Lucas Henrique.....	48
Sick, Bernhard.....	9, 113	Sousa, Armando	41
Sicre, Ronan	109	Sousa, Celso.....	69
Siddhartha, Siddhartha	94	Sousa, Joao Miguel Costa.....	98
Siddiqui, Shamoon	105	Sousa, Samuel.....	92
Siddiqui, Shoaib Ahmed.....	103	Sperduti, Alessandro	93
Sidorov, Sergey.....	38	Spevack, Samuel.....	65
Siegelmann, Hava.....	32	Spillane, Samuel	37
Sierenski, Lukasz	72	Spolaor, Simone	98
Sifa, Rafet.....	54, 88	Spong, Paul	23
Sigrist, Cooper	32	Spyromitros-Xioufis, Eleftherios.....	16
Sikaroudi, Milad.....	91	Squartini, Stefano	59
Silva Almeida, Jefferson.....	68, 105	Sridhar, Shailesh.....	53
Silva Filho, Telmo.....	71	Srikanth, Narasimalu.....	57
Silva, Leandro Maia	69	Srinivasa Garani, Shayan	25
Silva, Luiz	13	Srinivasan, Gopalakrishnan.....	81, 110
Silva, Maria Ines.....	18	Srivastava, Saurabh.....	77
Silva, Ramon Gomes da	57, 113	Stamou, Giorgos.....	98
Silva, Thalita.....	112	Starklit, Lasse	22
Silva, Wellington.....	38	Starner, Thad	23
Simar, Cedric	109	Starzynski, Jacek.....	45
Simoes, Francisco.....	40	Stefanova, Miroslava	103
Simon, Dixon.....	62	Stewart, Robert	44
Singh, Ankita	9	Stewart, Terrence C.....	17, 98
Singh, Chandan Kumar.....	65	Stieg, Adam	96
Singh, Girdhari	116	Stoica, Adrian.....	27
Singh, Gur Amrit Pal	21	Strumberger, Ivana	99
Singh, Pravendra	8, 100	Stuckey, Peter J.....	38
Singh, Priyanka	22	Sturgeon, Rene.....	54
Singh, Sameer	116	Sturm, Bob L.T.....	103
Singh, Srisht Fateh.....	109	Su, Bo	71, 94
Singhal, Siddharth.....	43	Su, Hang	39
Sinha, Rajesh	65	Su, Jindian	63
Sinha, Sanjana	91	Su, Sui	72

Su, Yijun	106	Takerkart, Sylvain	82
Su, Yipeng.....	8, 64	Tamal, Bose.....	37
Su, Zhenyang.....	111	Tan, Jie	72
Succetti, Federico	30	Tan, Joanna	8
Sudarshan, T.S.B.....	25	Tan, Kay Chen	9
Sueta, Kotaro	76	Tan, Randy	97
Suganthan, P.N.	7	Tan, Ying.....	13, 72
Sugawara, Toshiharu	54, 85	Tan, Zhenshan.....	47
Sukhija, Sanatan	107	Tanaka, Gouhei	30, 96
Sun, Bo.....	71	Tandon, Ravi.....	85
Sun, Dengdi	34	Tang, Ao	64
Sun, Donghong	67	Tang, Chenwei.....	47
Sun, Geng	99	Tang, Gaozhong	48
Sun, Jiaming	35	Tang, Haina	65
Sun, Liang	91	Tang, Hongyin.....	85
Sun, Lin	109	Tang, Huajin.....	31
Sun, Mengtao	13	Tang, Jin	34
Sun, Mingchao	100	Tang, Jinting	24
Sun, Mingyuan	41	Tang, Suqin.....	80
Sun, Qi	43, 48	Tang, Wei.....	70, 106
Sun, Qianchong	91	Tang, Wenhui	71
Sun, Qiule.....	26	Tang, Wensi.....	56
Sun, Sheng-Yang	40	Tang, Xiaohu.....	57
Sun, Tao	65	Tang, Xu	34
Sun, Yanan	59, 74	Tang, Zhentao.....	67
Sun, Yang.....	104	Tani, Giorgio	80
Sun, Yaru	80	Tanveer, M.....	7, 14
Sun, Yueheng	108	Tao, Le-Yan	17
Sun, YueLin.....	115	Tao, Yanyun.....	87
Sun, Yuwei	25	Tao, Ye	111
Sun, Yuxuan.....	109	Tao, Yuanyuan.....	114
Sun, Zhixiao	104	Tapia, Nicolas Igor	27, 28
Sunaga, Yuki.....	52	Tariello, Francesco	37
Sundaram, Suresh	57, 102	Tasfi, Norman	86
Sung, Flood.....	66	Tasoniero, Felipe Roque	48
Suominen, Hanna	74	Tatinati, Sivanagaraja	55, 56
Surya, Nepal	68	Tay, Noel Nuo Wi.....	82
Sussner, Peter	97	Tayebi, Amin	67
Suykens, Johan A. K.....	9	Taylor, Graham.....	51
Sven, Ahlback	62	Tefera, Yonas	72
Sylvain, Chartier	6	Tefera, Yonas Y.....	58
Symonds, Helena	23	Teguri, Takuya	52
Szadkowski, Rudolf.....	54	Teichrieb, Veronica	40
Szarynski, Krzysztof	26	Tepper, Jon.....	111
Szczepanski, Mateusz	58	Tesfaye, Getinet.....	58
Sztuba, Danuta	116	Tessadori, Jacopo.....	82
Szuba, Tadeusz	116	Teusch, Thomas	94
T. Guimaraes, Matheus.....	15	Thang, Trevor	53
Taffara, Salvatore.....	11	Thangarasa, Vithursan	51
Tagliaferri, Roberto	36	Thangavelu, Naveen.....	93
Taguchi, Hiroshi	34	Thanh-Tung, Hoang.....	15
Taha, Tarek M.	33, 81	Thapa, Surendrabikram	22
Taherkhani, Aboozar.....	60	Theocharis, S.....	11
Takahashi, Keichi.....	55	Thiam, Patrick	62
Takano, Ryousei	55	Thokala, Naveen Kumar	72
Takeda, Kentaro.....	9	Thomas, David.....	33

Thomas, Seidl	45	Twycross, Jamie	14
Thompson, Steven	10	Tyrrell, Pascal	53
Thonglek, Kundjanasith.....	55	Tyukin, Ivan.....	25, 38, 50
Thousif, Mohammed	102	Tyukin, Ivan Y.	16
Tian, Jiangmin	97	Tzallas, Alexandros T.	97
Tian, Qiangxing	56	Tzimiropoulos, Georgios	88
Tian, Shuo	100	Ueda, Takaya.....	107
Tian, WeiDong	115, 116	Uehara, Kuniaki	77
Tianle, Chen	68	Ukil, Arijit	107
Tiezzi, Matteo	110	Ullah, Amin.....	21
Ting, Chuan-Kang	46	Ullah, Sibghat.....	112
Ting, Justin L.	33	Umer, Muhammad	44
Tinini Alvarez, Israel Raul	49	Upadhyay, Yash.....	36
Tino, Peter.....	25	Uysal, Ismail.....	55
Tirilly, Pierre	32	V. Gangashetty, Suryakanth	114
Tiwari, Aruna	6	Vacek, Thomas	70
Tiwari, Hemant	62	Vahdati, Sahar	7
Tizhoosh, H.R.	91	Vakaloudis, Alex	16
Tizhoosh, Hamid R.....	27	Vakil, Gaurang	71
Todi, Ketan Kumar	64	Vala, Vanraj	62
Togawa, Tomoyuki.....	114	Valdes, Julio J.....	45
Togelius, Julian	46	Vale, Karliane.....	69
Tolmachev, Pavel.....	6	Vale, Karliane M. O.....	92
Toman, Marinus	9	Valle, Dan	101
Tomas, Jean	33	Valle, Marcos Eduardo	52
Tomaselli, Valeria.....	36	van Stein, Bas	58
Tomasz, Zabinski	115	Vanderelst, Dieter	39
Tong, Yang.....	59	Vanja, Popovic	54
Torikai, Hiroyuki	9	Vannucci, Armando.....	67
Torok, Mark Patrik.....	101	VanRullen, Rufin.....	8
Torrents-Barrena, Jordina	53	Varadarajan, Srenivas	107
Toru, Yamaguchi.....	75	Vargas, Patricia Amancio	29, 37
Tosi, Alessandra	46	Varone, Giuseppe	36
Tran, Dai Hoang.....	111	Vasconcelos, Marisa.....	74
Tran, Nguyen H.....	111	Vega-Oliveiros, Didier	99
Tran, Truyen.....	13, 15, 85	Vellasques, Eduardo.....	112
Trappenberg, Thomas.....	113	Vellido, Alfredo.....	103
Trautmann, Heike.....	105	Veloso, Adriano.....	65, 69, 84, 87, 101
Trinh, Thu Hai	85	Veltri, Luca	67
Trinta, Fernando.....	47	Venayagamoorthy, Ganesh K.....	80
Tripathi, Vibhu Kumar	41	Venceslai, Valerio	105
Tsai, Chih-Jung	43	Venkataramanaiah, Shreyas Kolala	8
Tsarenko, Anna	9	Venkatesh, Svetha.....	13, 85
Tschantz, Alexander	86	Venugopal, Deepak	97
Tsiligkaridis, Athanasios.....	34	Vercosa, Luiz Felipe	66
Tsipouras, Markos G.....	97	Verma, Brijesh	6, 90
Tsoy, Tatyana	61	Verma, Monu	116
Tsuji, Hiroyuki.....	23	Verma, Mridula.....	71
Tu, Cheng-Hao.....	14	Verma, Siddharth	15
Tu, Chenyang.....	70	Vessio, Gennaro	6
Tuba, Eva	99	Viegas, Eduardo	19
Tuba, Milan.....	99	Viegas, Joaquim	98
Tuncel, Ertem	63	Vieira, Guilherme	52
Tuqan, Mohammad	101	Vieira, Luiz Filipe Menezes	69
Turabee, Gulrukh	71	Vieira, Susana.....	98
Ture, Peken.....	37	Viejo, Diego.....	8

Vig, Lovekesh.....	77	Wang, Junjie	75
Vikas, Vidya	77	Wang, Kaige	91
Villmann, Andrea.....	63	Wang, Kaixin.....	87
Villmann, Thomas	63	Wang, Ke	65
Vincent, Adrien F.....	33	Wang, Lei.....	27, 100
Vincent, Chen.....	111	Wang, Lihong.....	115
Vineyard, Craig	6	Wang, Liming	42
Vipparthi, Santosh Kumar	116	Wang, Meili	59
Virtanen, Tuomas	59	Wang, NanXun.....	115, 116
Vitiello, Giuseppe	89	Wang, Peng	105
Viviani, Michele	80	Wang, Qian	55, 62, 80
Vladimir, Ivanov.....	106, 113	Wang, Qianlong	12
Vlahavas, Ioannis.....	16	Wang, Qiansheng.....	42
Vlasanek, Pavel	28	Wang, Qingcai	64
Von Zuben, Fernando J.	31	Wang, Quanbin	13
Vousden, Mark L.	33	Wang, Ruimeng	53
Vrochidou, E.....	11	Wang, Shanfeng	20
Vu, Minh	99	Wang, Shaochen	61
Wade, John Joseph	9	Wang, Shuihua	50
Wahid, Abdul.....	65	Wang, Shuo	68, 93
Walder, Christian.....	74	Wang, Siye.....	13
Wall, Julie	66	Wang, Ting.....	63
Walls, Darren	84	Wang, Tong	78
Wan, Zhiqiang	84	Wang, Wenbo	71
Wang, Bin.....	111, 115	Wang, Wenjun	108
Wang, BinXu	102	Wang, Wenyuan	90
Wang, Binyang.....	42	Wang, Xiangfeng	75
Wang, Can	111	Wang, Xianrui	108
Wang, Changjian.....	46	Wang, Xianzhi.....	12, 77
Wang, Chenxi.....	8	Wang, Xiaojie.....	12
Wang, Chongjun	25, 83	Wang, Xin	48, 59, 100
Wang, Chun	53, 79	Wang, Xinjie.....	96
Wang, Cong	34	Wang, Xu	65
Wang, Di.....	19	Wang, Yan	108
Wang, Dong	92	Wang, Yanan	90
Wang, Donglin.....	56, 64	Wang, Yanmeng	46
Wang, Dongzi.....	60	Wang, Yipeng	106
Wang, Fei.....	27, 65	Wang, Yisen.....	90
Wang, Feng.....	59	Wang, Yongjun	94
Wang, Guohua	94	Wang, Yongqiang	80
Wang, Guolong	101	Wang, Yongxing.....	41
Wang, Haibao	24	Wang, Yu	42
Wang, Hanjie.....	112	Wang, Yueming	32
Wang, Hao	13, 70, 112	Wang, Yuewu.....	106
Wang, Hongxing.....	69	Wang, Yu-Kai.....	38
Wang, Houfeng	11	Wang, Yulong	106
Wang, Huajie.....	31	Wang, Yunli.....	35
Wang, Ji	43, 48	Wang, Zehan	51
Wang, Jianfeng	40	Wang, Zhen	42, 91
Wang, Jianqiang	100	Wang, Zhi.....	53, 67, 111
Wang, Jiasong	72	Wang, Zhongfeng	72
Wang, Jiayue	34	Wang, Zhuowei	70
Wang, Jikai.....	105	Wang, Zikang.....	94
Wang, Jiong	78	Watanabe, Kazuho	17
Wang, Jun	111	Watkins, Johanna	5
Wang, Junhu	112	Watson, Simon.....	106

Watters, Paul.....	112	Wu, Ocean.....	93
Wawrzynski, Pawel.....	20, 93	Wu, Qinghua.....	71
Way, Andy.....	11	Wu, Shaochun.....	9
Webb, Nicola.....	51	Wu, Shichao.....	27
Webb, Russ.....	13	Wu, Shiguang.....	67
Weber, Jonathan.....	59	Wu, Shiqi.....	48
Weber, Vanessa.....	13	Wu, Suping.....	49
Wehrmann, Jonatas.....	35, 47	Wu, Xi.....	100
Wei, Bo.....	90, 107	Wu, Xiang.....	83
Wei, Hong.....	70, 77	Wu, Xiaolin.....	100
Wei, Hongxu.....	90	Wu, Yu.....	56
Wei, Ma.....	114	Wu, Yue.....	20
Wei, Ping.....	108	Wu, Yujia.....	111
Wei, Tong.....	74	Wu, Zhengqing.....	109
Wei, XiangPeng.....	19	Wu, Zipeng.....	57
Wei, Xiangsheng.....	65	Wunsch II, Donald C.....	78
Weidong, Sun.....	102	Xavier-Junior, Joao.....	92
Weiguang, Liu.....	69	Xi, Pengcheng.....	81
Weihui, He.....	105	Xi, Wei.....	53, 75
Weitzenfeld, Alfredo.....	39	Xi, Xiangyu.....	78
Wen, Keyu.....	63	Xia, Bin.....	42
Wen, Xianglan.....	31	Xia, Hangyu.....	78
Wen, Xiaoyue.....	75	Xia, Shutao.....	57
Wen, Yu.....	66, 76	Xia, Shu-Tao.....	63, 90
Wen, Yu-Wei.....	46	Xia, Xiao.....	19
Wen, Zhang.....	102	Xia, Ying.....	39
Weng, Juyang.....	39, 83	Xia, Yuanqing.....	42, 97
Wentao, Yu.....	66	Xian, Wei.....	75
Wersing, Heiko.....	60	Xiang, Hongxin.....	113
Whitty, Monica.....	83	Xiang, Ji.....	106
Wiering, Marco.....	54, 86	Xiang, Wu.....	39
Wijekoon, Anjana.....	108	Xiang, Yong.....	114
Wijewickrema, Sudanthi.....	28, 99	Xiao, Dongsheng.....	109
Wilson, Callum.....	76	Xiao, He.....	22
Wiratunga, Nirmalie.....	100, 108	Xiao, Shanlin.....	32
Wistuba, Martin.....	80	Xiao, Yafu.....	111
Wo{\z}niak, Marcin.....	92	Xiao, Yao.....	75
Woldegebreal, Dereje.....	72	Xiaofei, Zhou.....	34, 55
Woldegebreal, Dereje H.....	58	Xiaojun, Chen.....	55
Wolf, Denis Fernando.....	54	XiaoLiang, Zhang.....	114
Wolf, Marilyn.....	88	Xiaoyong, Li.....	102
Wollstadt, Patricia.....	58	Xie, Donghan.....	67
Wong, Kay Jan.....	73	Xie, Huimin.....	85
Wong, Raymond.....	65	Xie, Jinkui.....	111
Worrall, Stewart.....	110	Xie, Keli.....	72
Wouter, Goossens.....	88	Xie, Liangru.....	70
Wozniak, Michal.....	22	Xie, Liping.....	10
Wu, Chao.....	91	Xie, Peidai.....	94
Wu, Chunpeng.....	18	Xin, Jingmin.....	61
Wu, Dongrui.....	7, 23, 38, 60	Xin, Shu.....	48
Wu, Dongxian.....	90	Xinfeng, Li.....	75
Wu, Hangyao.....	45	Xing, Jinwei.....	39
Wu, Jia.....	111	Xing, Yannan.....	98
Wu, Lei.....	35, 107	Xinping, Guan.....	107
Wu, Licheng.....	41	Xiong, Gang.....	52
Wu, Lin.....	65	Xiong, Kun.....	101

Xiong, Qingyu.....	91, 106	Yang, Hao.....	65
Xiong, Zhang.....	46	Yang, Jian.....	10
Xirong, Li.....	52	Yang, Jin.....	111
Xu, Bo.....	14	Yang, Kaixiang.....	65
Xu, Dongming.....	99	Yang, Le.....	31
Xu, Guanglong.....	114	Yang, Long.....	54
Xu, Hao.....	49, 111	Yang, Longzhi.....	59
Xu, Haoran.....	79, 94	Yang, Ruiyang.....	85
Xu, Haowen.....	78	Yang, Shaoshi.....	24
Xu, Hong.....	115	Yang, Shengqi.....	104
Xu, Hui.....	40, 101	Yang, Shengxiang.....	53
Xu, Jianhua.....	114	Yang, Wenzhuo.....	78
Xu, Jungang.....	101	Yang, Xin.....	109
Xu, Kaiqiang.....	13, 24	Yang, Xingyu.....	32
Xu, Linhai.....	61	Yang, Xue.....	57
Xu, Ming.....	25	Yang, Yan.....	115
Xu, Peilan.....	56	Yang, Yongchao.....	62
Xu, Rui.....	105	Yang, Yongxin.....	66
Xu, Shangqing.....	78	Yang, YuePing.....	102
Xu, Shiyi.....	46	Yang, Yun.....	113
Xu, Weiran.....	115	Yang, Zhao.....	53
Xu, Xiaona.....	41	Yang, Zhaoyuan.....	87
Xu, Xinghai.....	85	Yangjie, Xu.....	102
Xu, Yiling.....	31	Yanming, Jin.....	102
Xu, Ying.....	60	Yann, Trevor.....	71
Xu, Yingjie.....	35	Yanushkevich, Svetlana.....	27, 28
Xu, Yongjun.....	13, 24, 65	Yao, Lina.....	12, 77, 111
Xu, Zenglin.....	58	Yao, Wenbin.....	47
Xu, Zeshui.....	45	Yao, Xifan.....	105
Xu, Zhao.....	112	Yao, Xin.....	4, 61
Xu, Zhen.....	42	Ye, Qing.....	74
Xu, Zongfeng.....	27	Ye, Ting.....	26
Xue, Bing.....	59	Ye, Wei.....	17, 78
Xue, Mengge.....	7	Ye, Wenwen.....	101, 114
Xufeng, Guo.....	75	Ye, Xiucui.....	38
Yacef, Kalina.....	30	Ye, Zuochang.....	108
Yagi, Yasushi.....	39	Yeap, Tet.....	90
Yakopic, Chris.....	33, 81	Yeasin, Mohammed.....	38, 79, 83
Yamada, Jun.....	54, 55	Yedida, Rahul.....	53
Yamamoto, Toru.....	85	Yelugam, Raghu.....	78
Yamin, Muhammad Abubakar.....	82	Yenigalla, Promod.....	13
Yan, Cairong.....	84	Yen-Ru, Lai.....	18
Yan, Jun.....	51, 79	Yermolin, Yevgeny.....	35
Yan, Rui.....	31	Yi, Guo.....	43
Yan, Weizhong.....	87, 105	Yi, Jianqiang.....	67
Yan, Xuewen.....	26	Yi, Ping.....	34
Yan, Yuanmeng.....	115	Yin, Hujun.....	106
Yanan, Fan.....	43	Yin, Pengfei.....	20, 55
YanBing, Liu.....	114	Yin, Youbing.....	100
Yang, Alex.....	109	Ying, Sha.....	34
Yang, Chao.....	47, 99	Ying, Weiqin.....	56
Yang, Chenguang.....	76	Yipeng, Wang.....	94
Yang, Chuanguang.....	13	Yiu, Siu Ming.....	115
Yang, Erfu.....	105	Yizhuo, Zhang.....	102
Yang, Guodong.....	94	Yogi, Subhash Chand.....	41
Yang, Haipeng.....	57	Yongzheng, Zhang.....	94

You, Jane	65	Zeng, Ting.....	113
You, Xinya.....	41	Zeng, Xiao-Jun.....	45
Young, Aaron	74	Zeng, Zhiwei	19
Young, Steven R.	103	Zeng, Zhiwen	17
Yousefi, Mehdi	10	Zha, Daren	106
Yu Guang, Wang.....	27, 43	Zhang, Bo	39
Yu, Bowen	36	Zhang, Boyu.....	48
Yu, Chao	91	Zhang, Canlin.....	77
Yu, Dunshan	111	Zhang, Canlong	80, 92, 106
Yu, Hongqi.....	40	Zhang, Changshui.....	100
Yu, Hui.....	12	Zhang, Cheng	58
Yu, Jia Yuan	79, 101	Zhang, Chengkun	34
Yu, Junshuai	111	Zhang, Chengwei.....	41
Yu, Lei	21	Zhang, Chuang	107
Yu, Lingshuang	116	Zhang, Dawei.....	17
Yu, Linlin.....	12	Zhang, Guangquan	34, 74, 75
Yu, Pengqian.....	100	Zhang, Guixu	40
Yu, Shanshan.....	63	Zhang, Guoguang.....	72
Yu, Xie.....	21	Zhang, Hengbo	26
Yu, Yang.....	64, 91	Zhang, Honggang	112
Yu, Yaoquan	71	Zhang, Jia	92
Yu, Yong.....	40, 65	Zhang, Jia-Dong	106
Yu, Yonghong	64, 111	Zhang, Jiahao	76
Yu, Zhaoxu	26	Zhang, Jiaheng	28
Yu, Zhiwen	65	Zhang, Jianfei	46
Yu, Zhiyi	32	Zhang, Jianjun	63
Yuan, Changhe	100	Zhang, Jianshen	12
Yuan, Quan	12	Zhang, Jianxin.....	26, 62
Yuan, Xian.....	75	Zhang, JiaRui.....	19
Yuan, Yong	40	Zhang, Jing	34
Yuanxiang, Li	75	Zhang, Jinglei.....	17, 78
Yu-Cheng, Shih.....	18	Zhang, Jinpeng	90
Yue, Guoqi	87	Zhang, Juncheng	59
Yue, Jianjian.....	41	Zhang, Junjie	92
Yue, Shigang.....	24	Zhang, Junming	105
Yu-Han, Lin	18	Zhang, Kai.....	91
Yuhua, Tang.....	17	Zhang, Ke	115
Yunzhe, Sun.....	52	Zhang, Lei.....	57, 64, 76, 83
Yuqi, Peng.....	47	Zhang, Li	36, 64
Yuxuan, Zhang.....	75	Zhang, Licheng	77
Z. Li, Stan	92	Zhang, Lintao	11
Zaib, Munazza.....	111	Zhang, Mengjie	59
Zajdel, Roman.....	115	Zhang, Mingli	109
Zakiev, AUFAR	61	Zhang, Ni	56
Zakkay, Eyal.....	49	Zhang, Peng	115
Zamanirad, Shayan.....	19	Zhang, Qi	92
Zanca, Dario.....	31	Zhang, Qian	34
Zanchettin, Cleber.....	40, 46, 66, 77	Zhang, Qiang	26, 109
Zang, Liangjun	64	Zhang, Qibin	105
Zawistowski, Pawel	93	Zhang, Qichao	67
Zaychenko, Yuriy	26	Zhang, Qingquan	34
Zeghari, Radia.....	116	Zhang, Quanhai	12
Zeiler, Steffen.....	58	Zhang, Rong	115
Zeng, Dajun.....	94	Zhang, Rongkai.....	84
Zeng, Fanchen	34	Zhang, Ruijun.....	72
Zeng, Qiu hao	116	Zhang, Shenghuan	82

Zhang, Shikun	17, 78	Zhao, Ying.....	51
Zhang, Shuai	63	Zhao, Youjian	78
Zhang, Shubin	90	Zhao, Yu	32
Zhang, Tianle	67	Zhao, Yue	41
Zhang, Tianyang	34	Zhao, Yuxuan.....	111
Zhang, Tong.....	19	Zhao, Zehua.....	106
Zhang, Tongtong	72	Zhao, ZhongQiu	115, 116
Zhang, Wei	26	Zhao, Ziping	67
Zhang, Wei Emma	25, 26, 111	Zhao, Ziyi	75, 98
Zhang, Weiwei	27	Zhaocheng, Zhang.....	20
Zhang, Wen.....	60	Zhao-Hui, Sun.....	105
Zhang, Wenbing.....	26	Zheheng, Jiang	90
Zhang, Wenhua.....	6	Zheltonozhskii, Evgenii	35
Zhang, Wenjie	12	Zheng, Feng.....	77
Zhang, Wentao.....	113	Zheng, Heng	51
Zhang, Wenyuan.....	35	Zheng, Jingwei.....	84
Zhang, Xiangrong.....	34, 48	Zheng, Kaijie	56
Zhang, Xiaofei	51	Zheng, Ling	59
Zhang, Xu.....	39, 57	Zheng, Nanning	61, 108
Zhang, Xuanyang.....	58	Zheng, Qian	54
Zhang, Xuejie	73	Zheng, Xuebin.....	47
Zhang, Xueting	66	Zheng, Zejia	39
Zhang, Yahui	27	Zheng, Zhonglong.....	17
Zhang, Yanfang.....	13	Zheng, Zhuobin.....	90
Zhang, Yao.....	45	Zhihao, Chen	75
Zhang, Yi.....	83, 106, 109	Zhiheng, Zhou.....	48
Zhang, Yicheng	24	Zhihua, Liu	90
Zhang, Yongchi	108	ZHiwen, Cao	19
Zhang, Yongjun.....	91	Zhiwen, Wang	17
Zhang, Yongxuan	51	Zhixin, Li.....	17
Zhang, Yongzheng.....	106	Zhong, Guoqiang	90
Zhang, Yunjian	42	Zhong, Junpei	89
Zhang, Yunong.....	10, 88	Zhong, Mingyang	90
Zhang, Yuzhen	87	Zhong, Peixiang	28
Zhang, Zeyu	40, 42	Zhong, Xiangnan.....	61
Zhang, Zezheng	80	Zhong, Xu	60
Zhang, Zhecheng	83	Zhou, Aimin.....	40
Zhang, Zhenya	56	Zhou, Bingxin	47
Zhang, Zhenyu	7, 36, 106	Zhou, Changle	59
Zhang, Zhiyuan	71	Zhou, Jie	12, 115
Zhang, Zijia.....	97	Zhou, Leiyang	12
Zhang, Zuyu	39	Zhou, Meili	92
Zhao, Dong.....	16	Zhou, Meilin	115
Zhao, Dongbin.....	67	Zhou, Nan	56
Zhao, Feng	64	Zhou, Qifei	115
Zhao, Jiachen.....	90	Zhou, Qiongyi.....	24
Zhao, Juan	60	Zhou, Qiyun	40
Zhao, Liang	69, 99	Zhou, Rencai.....	116
Zhao, Mingde	91	Zhou, Xiaotian.....	7
Zhao, Shuai.....	65	Zhou, Yan	8
Zhao, Tianchi	85	Zhou, Zhexuan.....	99
Zhao, Wanting.....	111	Zhou, Zichen	31
Zhao, Wanyu.....	78	Zhu, Baozhou.....	13, 14
Zhao, Xin	59	Zhu, Chengzhang	79
Zhao, Yajie	41	Zhu, Dongxiao.....	107
Zhao, Yang.....	87	Zhu, Fuqing.....	64

Zhu, Hui.....	13, 24	Zhu, Zhanxing	58
Zhu, Huiling	71	Zhu, Zhiliang	59
Zhu, Huiqing.....	59	Zhu, Ziye	42
Zhu, Jinghua	47	zia ul-saufie Mohamad Japeri, Ahmad	60
Zhu, Jun	39	Zilli, Davide	46
Zhu, Kai	25	Zinovyev, Andrei	38
Zhu, Li	35	Ziviani, Nivio.....	65, 69, 84, 87
Zhu, Peng.....	34	Zoelzer, Udo	49
Zhu, Ruomin.....	96	Zohaib, Jan	70
Zhu, Shaoyi	13	Zohren, Stefan	87
Zhu, Siyuan	59	Zola, Wagner	19
Zhu, Wenfang.....	62	Zolotykh, Nikolai.....	38
Zhu, Wenxuan.....	109	Zongxuan, Liu	75
Zhu, Xiao	66	Zou, Weidong.....	97
Zhu, Xiaodan.....	80, 81, 90	Zou, Xinyun.....	39
Zhu, Xiaohui	85	Zuin, Gianluca	65
Zhu, Xiaoqian	34	Zunino, Rodolfo.....	5
Zhu, Yaping.....	45	Zuo, Guoyu	41
Zhu, Yinlong	109	Zuo, Heng	75
Zhu, Yuanbin.....	45	Zuo, Hua	74, 75
Zhu, Yuanheng.....	67	Zyblewski, Pawel	22
Zhu, Yuesheng.....	78, 91		