2007 IEEE International Symposium on Approximate Dynamic Programming and Reinforcement Learning

Welcome to ADPRL 2007 - the very first IEEE International Symposium on Approximate Dynamic Programming and Reinforcement Learning. The area of approximate dynamic programming and reinforcement learning is a fusion of a number of research areas in engineering, mathematics, artificial intelligence, operations research, and systems and control theory. Fifty years after Richard Bellman's pioneering work on dynamic programming in the 1950's, this symposium will provide a remarkable opportunity for the academic and industrial community to address new challenges, share solutions, and define promising future research directions. The main challenge introduced by Bellman which still remains a widely open question is the famous "curse of dimensionality." The theme of this year's symposium is "breaking the curse of dimensionality." A systems approach is required to address new problems of this challenging and promising area, and designing biologically-inspired intelligent systems may be an interesting way to address the problems.

You will enjoy an extraordinary technical program thanks to the ADPRL 2007 International Program Committee members who worked very hard to have all papers reviewed before the review deadline. We received a total of 65 submissions from various parts of the world. The final technical program consists of 49 papers among which 40 are oral session papers and 9 are poster session papers. There will be a keynote lecture delivered by Frank L. Lewis entitled "Adaptive Dynamic Programming for Robust Optimal Control Using Nonlinear Network Learning Structures." We would like to also express our sincere gratitude to all reviewers of ADPRL 2007 for the time and effort they have generously given to the symposium.

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