

# Discriminative Learning of Dynamical Systems for Motion Tracking: Supplemental Material

## To the readers:

We provide supplemented experimental results for CMU human motion data discussed in Sec. 6.2.

For the three motions (walking, picking-up a ball, and running), we provide:

### (1) “efig3.pdf” (Enlarged version of Figure 3 in the paper)

“Figure 3” in the paper may be difficult to clearly distinguish the body skeletons estimated by competing methods, especially when printed out in a monochrome hard copy.

For a comfortable view to the readers, we have enlarged them into the attached PDF file.

### (2) “walk.zip”, “pickup.zip”, and “run.zip” (zipped video files)

**\*\*\* Note: Each file size could be 100-200 Mb when unzipped. \*\*\***

We have NOT compressed the video files to give the highest quality view for easy comparison.

The video (.avi) files can be best viewed in the Microsoft Windows Media Player 10, while they can also be viewed with MPlayer (<http://www.mplayerhq.hu>) and/or VLC (<http://www.videolan.org/vlc>) on other operating systems.

For each motion, it shows three columns, each of which compares each method (ML, SCML, or LVN) with the ground-truth. They are all synchronized.

### **\*\*\* Reminder \*\*\***

The competing methods are:

**ML** = LDS learned generatively

**SCML** = LDS learned discriminatively (our proposed algorithm)

**LVN** = latent variable nonlinear dynamic model