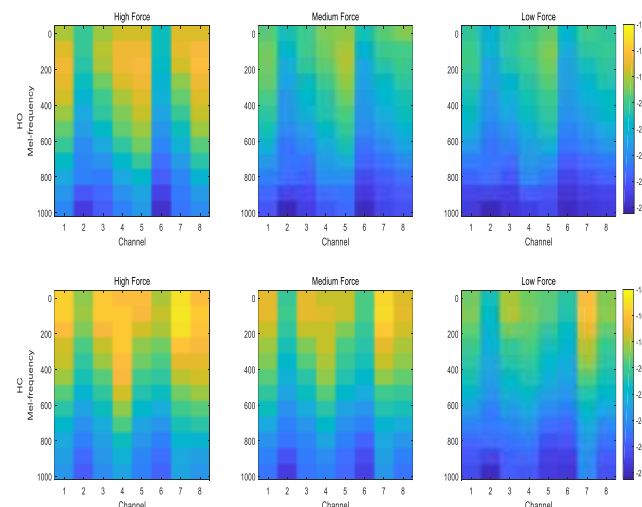


Toward reducing the effect of force variations on electromyography pattern recognition by Mel-frequency spectrum

Yan Liu, Lan Tian, Yue Zheng, Xiaomeng Zhou, Xiangxin Li*, and Guanglin Li

Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, China

- The energy distributions in frequency of different force levels were similar for the same motion class
- A Mel filter bank is applied to the power spectrum to achieve the Mel-frequency spectrum (MFS)
- For the un-trained high and low force levels, the accuracy increased by about 27% and 11% than TD feature set (MAV, WL, ZC,SSC)



log-MFS for HO and HC at different force levels.