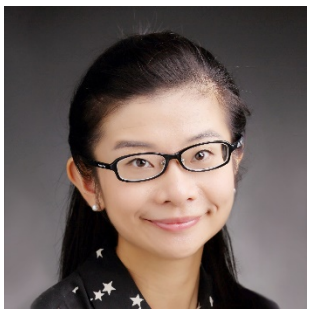
Special Session 11: Deep Neural Network Based Image/Video Compression

Image/Video compression techniques are designed for removing the redundancy of image/video information, which largely reduce the cost of the storage and transmission of images and videos. With the powerful feature representation ability and massive learning data, the input signals can be well modelled and a great non-linear mapping to the target domain can be learnt by deep neural network. It is a new opportunity to utilize deep neural network techniques to further boost the compression performance. Although some primary works have tried, deep neural network techniques are still not fully exploited and many modules of image/video compression techniques have not been touched by rethinking the big data driven and deep based methods. Consequently, this special session seeks submissions about the latest deep neural network-based image/video compression methods. Topics of interest of this special session include, but are not limited to deep neural network based, end-to-end image compression, intra/inter prediction, fast mode decision, rate controlling, transform, entropy coding, loop filter and post-processing.

Organizers:



Jiaying Liu
Institute of Computer Science and Technology
Peking University, China

Dong Liu
Dept. Electronic Engineering & Information Science
University of Science and Technology of China, China

Jonathan Pfaff
Heinrich Hertz Institute
Fraunhofer Institute for Telecommunications, Germany

Yao Wang
Polytechnic School of Engineering
New York University, USA