

Speaker Bio

Joyce Tzu-Yu Liu is an Associate Professor and Yushan Young Fellow at the Electrical Engineering Department and Graduate Institute of Biomedical Electronics and Bioinformatics at National Taiwan University (NTU). Prior to her position at NTU, she was the Director of Machine Learning Science at Freenome, with multiple years of industry experiences in Silicon Valley from research to product development. She was a Simons Postdoctoral Fellow in the Departments of Mathematics and Biology at the University of Pennsylvania and with the Electrical Engineering and Computer Sciences (EECS) department at the University of California, Berkeley. Joyce received her B.S. from the National Taiwan University (2007) and her Ph.D. from the University of Michigan, Ann Arbor (2013), both in Electrical Engineering. She is a researcher in machine learning and computational biology. Her research includes statistical learning from high dimensional and small sample size problems, optimization, structured variable selection, density estimation, functional data analysis, transfer learning, multi-task learning, data fusion, convolutional neural network and their applications to biomedical data. These research experiences involve analysis of large datasets, e.g., genomic sequencing data, 3D/4D microscopy images, and time series of electrocardiograms.