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Wei Li received the Ph.D. degree in electrical and computer engineering from Mississippi State University, Starkville, MS, USA, in 2012. Subsequently, he spent 1 year as a Postdoctoral Researcher at the University of California, Davis, CA, USA. He is currently a professor with the School of Information and Electronics, Beijing Institute of Technology. His research interests include hyperspectral image analysis, pattern recognition, and data compression. He is currently serving as Associate Editor for the IEEE Transactions on Geoscience and Remote Sensing (TGRS) and IEEE Signal Processing Letters (SPL). He has published more than 150 peer-reviewed articles and 100 conference papers totally cited by 7500 times（Google Scholar）. He received the JSTARS Best Reviewer in 2016 and TGRS Best Reviewer award in 2020 from IEEE Geoscience and Remote Sensing Society (GRSS), and the Outstanding Paper award at IEEE International Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (Whispers), 2019.

Speech Title: “Deep Convolutional Neural Network for Hyperspectral Image Classification”

Abstract: With the development of hyperspectral image technology, the data types for earth observation are becoming more and more abundant while the amount of data is increasing dramatically. Deep learning model has prominent superiority in image feature extraction; specifically, the multi-layer perceptron structure enables deep learning model to capture the essential representation of data. This report focuses on the topic of hyperspectral image classification based on deep convolution neural network. This is the important part of our previous work, mainly including pixel-pair strategy for small sample problem, and diverse-region based CNN for spatial-window selection and contextual sensitivity control. In addition, researches on deep convolutional neural networks for multi-source remote sensing image classification would be discussed further, involving two-branch convolutional neural networks, and unsupervised feature extraction algorithm based on end-to-end network. Experimentally, compared with traditional methods, aforementioned deep learning models can obtain more useful information from remote sensing images, thus improving classification accuracy.