



## Yu-Bang Zheng (郑玉棒)

### Personal information

Name(s): Yu-Bang Zheng

Research interests: Sparse and low-rank modeling for high-dimensional image processing problems

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### Education and training

09/2019- Current University of Electronic Science and Technology of China (UESTC)  
Ph. D. student in Applied Mathematics (Supervisor: Prof. Ting-Zhu Huang)  
Special postgraduate scholarship of science

09/2017-06/2019 University of Electronic Science and Technology of China (UESTC)  
Master student in Applied Mathematics (Supervisor: Prof. Ting-Zhu Huang)  
Postgraduate scholarship (twice)

09/2013-06/2017 Anhui University of Finance and Economics (AUFE)  
Bachelor student in Information and Computing Science  
Pacemaker to Merit Student

### Publications

1. **Yu-Bang Zheng**, Ting-Zhu Huang\*, Xi-Le Zhao\*, Tai-Xiang Jiang, Tian-Hui Ma, Teng-Yu Ji, Mixed Noise Removal in Hyperspectral Image via Low-Fibered-Rank Regularization, *IEEE Transactions on Geoscience and Remote Sensing*, 2020, 58(1): 734-749.
2. **Yu-Bang Zheng**, Ting-Zhu Huang\*, Teng-Yu Ji, Xi-Le Zhao\* , Tai-Xiang Jiang, Tian-Hui Ma , Low-Rank Tensor Completion via Smooth Matrix Factorization, *Applied Mathematical Modelling*, 2019, 70: 677-695.
3. **Yu-Bang Zheng**, Ting-Zhu Huang\*, Xi-Le Zhao\*, Tai-Xiang Jiang, Jie Huang, Hyperspectral Image Denoising via Convex Low-Fibered-Rank Regularization,” in *IGARSS*, 2019, 222-225.
4. Xiao-Tong Li, Xi-Le Zhao\*, Tai-Xiang Jiang, **Yu-Bang Zheng**, Teng-Yu Ji, Ting-Zhu Huang, Low-Rank Tensor Completion via Combined Non-local Self-Similarity and Low-Rank Regularization, *Neurocomputing*, 2019, 367: 1-12.

5. Jian-Li Wang, Ting-Zhu Huang\*, Xi-Le Zhao\*, Jie Huang, Tian-Hui Ma, **Yu-Bang Zheng**, Reweighted Block Sparsity Regularization for Remote Sensing Images Destriping, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 2019, 12(12): 4951-4963. .
6. Xin Li, Ting-Zhu Huang\*, Xi-Le Zhao\*, Teng-Yu Ji, **Yu-Bang Zheng**, Liang-Jian Deng, Adaptive Total Variation and Second-Order Total Variation-Based Model for Low-Rank Tensor Completion, *Numerical Algorithms*, accepted, 2020.
7. Tian Lu, Xi-Le Zhao\*, **Yu-Bang Zheng**, Meng Ding, and Xiao-Tong Li, Tensor Completion via Global Low-Tubal-Rankness and Nonlocal Self-Similarity, *IEEE Global Conference on Signal and Information Processing (GlobalSIP)*, 2019, 1-5.

### In preparing

1. **Yu-Bang Zheng**, Ting-Zhu Huang\*, Xi-Le Zhao\*, Tai-Xiang Jiang, Teng-Yu Ji, Tian-Hui Ma, Tensor N-tubal Rank and Its Convex Relaxation for Low-Rank Tensor Recovery, arXiv preprint arXiv:1812.00688, 2018 (submitted to *Information Sciences*, Under revision).
2. **Yu-Bang Zheng**, Ting-Zhu Huang\*, Xi-Le Zhao\*, Yong Chen, Wei He, Double Factor-Regularized Low-Rank Tensor Factorization for Mixed Noise Removal in Hyperspectral Image, (*submitted to IEEE Transactions on Geoscience and Remote Sensing*, Under revision).

### Scientific project

- The research on sparse optimization models and high-performance algorithms for image reconstruction in compressed sensing, 2018-2021, National Natural Science Foundation of China (NSFC), 61772003.
- The tensor optimization models and high-performance algorithms for hyperspectral images restoration, 2019-2022, NSFC, 61876203.