

Yu-Bang Zheng (郑玉棒)

Personal information

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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, Teng-Yu Ji, Tian-Hui Ma, Tensor N-tubal Rank and Its Convex Relaxation for Low-Rank Tensor Recovery, **accepted**, *Information Sciences*.
- 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, **accepted**, *IEEE Transactions on Geoscience and Remote Sensing*, doi: 10.1109/TGRS.2020.2987954.
- 3. **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*, vol. 58, no. 1, pp. 734-749, 2020.
- 4. **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*, vol. 70,



pp. 677-695, 2019.

- 5. Yu-Bang Zheng, Ting-Zhu Huang*, Xi-Le Zhao*, Tai-Xiang Jiang, Jie Huang, Hyperspectral Image Denoising via Convex Low-Fibered-Rank Regularization, in *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, 2019, pp. 222-225. (Oral)
- 6. 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*, vol. 367, pp. 1-12, 2019.
- 7. 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*, vol. 12, no. 12, pp. 4951-4963, 2019.
- 8. 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, doi: 10.1007/s11075-020-00876-y.
- 9. Xi-Le Zhao, Xin Nie*, **Yu-Bang Zheng**, Teng-Yu Ji, Ting-Zhu Huang, Low-Rank Tensor Completion via Tensor Nuclear Norm With Hybrid Smooth Regularization, *IEEE Access*, vol. 7, pp. 131888-131901, 2019
- 10. 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)*, pp. 1-5. (Oral).

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.