

# 查志远

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## 🎓 教育背景

南京大学, 电子科学与工程学院 博士研究生 信息与通信工程	2015 年 8 月 -- 2018 年 5 月
昆明理工大学, 信息工程与自动化学院 硕士研究生 计算机技术	2012 年 8 月 -- 2015 年 5 月
江苏大学, 计算机科学与通信工程学院 本科 计算机科学与技术	2006 年 9 月 -- 2010 年 6 月

## 👤 工作经历

电子科技大学 信息与通信工程学院 助理研究员 导师: 朱策教授 (长江学者, IEEE Fellow)	2018 年 8 月 -- 2019 年 8 月
新加坡南洋理工大学 电机与电子工程学院 研究员 Rapid-Rich Object Search Lab (ROSE Lab), 导师为 Bihan Wen 教授和 Alex Chichung Kot 教授 (IEEE Fellow)	2019 年 8 月 -- 2023 年 6 月
新加坡南洋理工大学 电机与电子工程学院 高级研究员 Rapid-Rich Object Search Lab (ROSE Lab), 导师为 Bihan Wen 教授和 Alex Chichung Kot 教授 (IEEE Fellow)	2023 年 7 月 -- 至今

## 🔍 研究兴趣

图像复原问题, 稀疏信号处理, 机器学习。

## 🏆 获奖情况

The 17th IEEE International Conference on Multimedia and Expo Platinum Best Paper Award (铂金最佳论文奖)	07/2017 前 0.5%
The 20th IEEE International Conference on Multimedia and Expo Best Paper Runner Up Award (最佳论文亚军奖)	07/2020 前 0.5%

## ♡ 期刊论文

- Zhiyuan Zha**, Bihan Wen, Xin Yuan, Saiprasad Ravishankar, Jiantao Zhou and Ce Zhu. "Learning Non-local Sparse and Low-Rank Models for Image Compressive Sensing", *IEEE Signal Processing Magazine (SPM)*, vol. 40, no. 1, pp. 32-44, Jan. 2023. (中科院 1 区, 影响因子: 15.204)
- Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiachao Zhang, Jiantao Zhou, Xudong Jiang and Ce Zhu. "Multiple Complementary Priors for Multispectral Image Compressive Sensing Reconstruction", *IEEE Transactions on Cybernetics (TCYB)*, 2023. (中科院 1 区, 影响因子: 19.118)
- Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiachao Zhang, Jiantao Zhou, Yilong Lu and Ce Zhu. "Nonlocal Structured Sparsity Regularization Modeling for Hyperspectral Image Denoising", *IEEE Transactions on Geoscience and Remote Sensing (TGRS)*, 2023. (中科院 1 区, 影响因子: 8.125)
- Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou, Ce Zhu and Alex Chichung Kot. "Low-Rankness Guided Group Sparse Representation for Image Restoration", *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, 2022. (中科院 1 区, 影响因子: 14.255)

5. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou, Ce Zhu and Alex Chichung Kot. "A Hybrid Structural Sparsification Error Model for Image Restoration", *IEEE Transactions on Neural Networks and Learning Systems (TNNLS)*, vol. 33, no. 9, pp. 4451-4465, 2022. (中科院 1 区, 影响因子: 14.255)
6. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiachao Zhang and Ce Zhu. "Non-Convex Structural Sparsity Residual Constraint for Image Restoration", *IEEE Transactions on Cybernetics (TCYB)*, vol. 52, no. 11, pp. 12440-12453, Nov. 2022. (中科院 1 区, 影响因子: 19.118)
7. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Joey Tianyi Zhou, Jiantao Zhou and Ce Zhu. "Triply Complementary Priors for Image Restoration", *IEEE Transactions on Image Processing (TIP)*, vol. 30, pp. 5819-5834, 2021. (中科院 1 区, 影响因子: 10.856, CCF A)
8. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou and Ce Zhu. "Image Restoration via Reconciliation of Group Sparsity and Low-Rank Models", *IEEE Transactions on Image Processing (TIP)*, vol. 30, pp. 5223-5238, 2021. (中科院 1 区, 影响因子: 10.856, CCF A)
9. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiantao Zhou and Ce Zhu. "Group Sparsity Residual Constraint With Non-Local Priors for Image Restoration", *IEEE Transactions on Image Processing (TIP)*, vol. 29, pp. 8960-8975, 2020. (中科院 1 区, 影响因子: 9.340, CCF A)
10. **Zhiyuan Zha**, Xin Yuan, Jiantao Zhou, Ce Zhu and Bihan Wen. "Image restoration via simultaneous nonlocal self-similarity priors", *IEEE Transactions on Image Processing (TIP)*, vol. 29, pp. 8561-8576, 2020. (中科院 1 区, 影响因子: 9.340, CCF A)
11. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiachao Zhang, Jiantao Zhou and Ce Zhu. "Image restoration using joint patch-group-based sparse representation", *IEEE Transactions on Image Processing (TIP)*, vol. 29, pp. 7735-7750, 2020. (中科院 1 区, 影响因子: 9.340, CCF A)
12. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiantao Zhou, Jiachao Zhang and Ce Zhu. "A benchmark for sparse coding: When group sparsity meets rank minimization", *IEEE Transactions on Image Processing (TIP)*, vol. 29, pp. 5094-5109, 2020. (中科院 1 区, 影响因子: 9.340, CCF A)
13. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiantao Zhou, Jiachao Zhang and Ce Zhu. "From rank estimation to rank approximation: Rank residual constraint for image restoration", *IEEE Transactions on Image Processing (TIP)*, vol. 29, pp. 3254-3269, 2020. (中科院 1 区, 影响因子: 9.340, CCF A)
14. **Zhiyuan Zha**, Xinggan Zhang, Yu Wu, Qiong Wang, Xin Liu, Lan Tang and Xin Yuan. "Non-convex weighted Lp nuclear norm based ADMM framework for image restoration", *Neurocomputing*, vol. 311, pp. 209-224, 2018. (中科院 2 区, 影响因子: 3.241)
15. **Zhiyuan Zha**, Xinggan Zhang, Qiong Wang, Lan Tang and Xin Liu. "Group-based sparse representation for image compressive sensing reconstruction with non-convex regularization", *Neurocomputing*, vol. 296, pp. 55-63, 2018. (中科院 2 区, 影响因子: 3.241)
16. **Zhiyuan Zha**, Xinggan Zhang, Qiong Wang, Yechao Bai, Yang Chen, Lan Tang and Xin Liu. "Group sparsity residual constraint for image denoising with external nonlocal self-similarity prior", *Neurocomputing*, vol. 275, pp. 2294-2306, 2018. (中科院 2 区, 影响因子: 3.241)
17. **Zhiyuan Zha**, Xin Liu, Xinggan Zhang, Yang Chen, Lan Tang, Yechao Bai, Qiong Wang and Zhenhong Shang. "Compressed sensing image reconstruction via adaptive sparse nonlocal regularization", *The Visual Computer*, vol. 34, pp. 117-137, 2018. (中科院 4 区, 影响因子: 1.036)
18. Qiong Wang, Xinggan Zhang, Yu Wu, Lan Tang and **Zhiyuan Zha**\*. "Nonconvex Weighted Lp Minimization Based Group Sparse Representation Framework for Image Denoising", *IEEE Signal Processing Letters (SPL)*, vol. 24, pp. 1686-1690, Nov. 2017. (中科院 3 区, 影响因子: 2.528)
19. Lanqing Guo, **Zhiyuan Zha**, Saiprasad Ravishankar, and Bihan Wen. "Exploiting Non-Local Priors via Self-Convolution for Highly-Efficient Image Restoration", *IEEE Transactions on Image Processing (TIP)*, vol. 31, pp. 1311-1324, 2022. (中科院 1 区, 影响因子: 11.041, CCF A)
20. Chen Xiang, Wenjun Xia, Yan Liu, Hu Chen, Jiliu Zhou, **Zhiyuan Zha**, Bihan Wen, and Yi Zhang. "FONT-SIR: Fourth-Order Nonlocal Tensor Decomposition Model for Spectral CT Image Reconstruction", *IEEE Transactions on Medical Imaging (TMI)*, vol. 41, pp. 2144-2156, 2022. (中科院 1 区, 影响因子: 11.037)

## ♥ 会议论文

1. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou and Ce Zhu. "Hyperspectral Image Denoising via Nonlocal Rank Residual Modeling", in *48th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Greece, 2023. (CCF B)
2. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou and Ce Zhu. "Simultaneous Nonlocal Low-Rank and

- Deep Priors for Poisson Denoising", in *47th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Singapore, pp. 2320-2324, 2022. (Oral, CCF B)
3. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou and Ce Zhu. "Low-Rank Regularized Joint Sparsity for Image Denoising", in *28th IEEE International Conference on Image Processing (ICIP)*, Anchorage, Alaska, USA, pp. 1644-1648, 2021. (Oral)
  4. **Zhiyuan Zha**, Bihan Wen, Xin Yuan, Jiantao Zhou and Ce Zhu. "Reconciliation of Group Sparsity and Low-Rank Models for Image Restoration", in *20th IEEE International Conference on Multimedia and Expo(ICME)*, London, United Kingdom, pp. 1-6, 2020. (**Best Paper Runner Up Award, Top 0.5%, Total 834**, Oral, CCF B)
  5. **Zhiyuan Zha**, Xin Yuan, Jiantao Zhou, Ce Zhu and Bihan Wen. "A Hybrid Structural Sparse Error Model for Image Deblocking", in *45th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Barcelona, Spain, pp. 2493-2497, 2020. (Oral, CCF B)
  6. **Zhiyuan Zha**, Xin Yuan, Jiantao Zhou, Joey Tianyi Zhou, Bihan Wen and Ce Zhu. "The Power Of Triply Complementary Priors For Image Compressive Sensing", in *27th IEEE International Conference on Image Processing (ICIP)*, Abu Dhabi, United Arab Emirates, pp. 983-987, 2020. (Oral)
  7. **Zhiyuan Zha**, Bihan Wen, Jiachao Zhang, Jiantao Zhou and Ce Zhu. "A Comparative Study for the Nuclear Norms Minimization Methods", in *26th IEEE International Conference on Image Processing (ICIP)*, Taipei, Taiwan, China, pp. 2050-2054, 2019. (Poster)
  8. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiachao Zhang, Jiantao Zhou and Ce Zhu. "Simultaneous Nonlocal Self-Similarity Prior for Image Denoising", in *26th IEEE International Conference on Image Processing (ICIP)*, Taipei, Taiwan, China, pp. 1119-1123, 2019. (Poster)
  9. **Zhiyuan Zha**, Xinggan Zhang, Qiong Wang, Yechao Bai, Lan Tang and Xin Yuan. "Group sparsity residual with non-local samples for image denoising", in *43th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Calgary, AB, Canada, pp. 1353-1357, 2018. (Oral, CCF B)
  10. **Zhiyuan Zha**, Xin Yuan, Bihan Wen, Jiantao Zhou and Ce Zhu. "Joint patch-group based sparse representation for image inpainting", in *10th Asian Conference on Machine Learning (ACML)*, Beijing, China, pp. 145-160. 2018. (Oral)
  11. **Zhiyuan Zha**, Xin Liu, Xiaohua Huang, Henglin Shi, Yingyue Xu, Qiong Wang, Lan Tang and Xinggan Zhang, "Analyzing the Group Sparsity based on the Rank Minimization Methods". in *17th IEEE International Conference on Multimedia and Expo (ICME)*, Hong Kong, China, pp. 883-888, 2017. (**Platinum Best Paper Award, Top 0.5%, Total 850**, Oral, CCF B)
  12. **Zhiyuan Zha**, Xin Liu, Ziheng Zhou, Xiaohua Huang, Jingang Shi, Zhenhong Shang, Lan Tang, Yechao Bai, Qiong Wang and Xinggan Zhang. "Image denoising via group sparsity residual constraint", in *42th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, New Orleans, LA, USA, pp. 1787-1791, 2017. (Poster, CCF B)
  13. **Zhiyuan Zha**, Xinggan Zhang, Qiong Wang, Yechao Bai and Lan Tang. "Image denoising using group sparsity residual and external nonlocal self-similarity prior", in *24th IEEE International Conference on Image Processing (ICIP)*, Beijing, China, pp. 2956-2960. IEEE, 2017. (Poster)
  14. Lanqing Guo, **Zhiyuan Zha**, Saiprasad Ravishankar, and Bihan Wen. "Self-convolution: A highly-efficient operator for non-local image restoration", in *46th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Toronto, Ontario, Canada, pp. 1860-1864, 2021. (Oral, CCF B)

## 🎵 学术服务

- The Visual Computer 期刊 编委 (Associate Editor), 04/2023-Present
- Area Chair of the 5th IEEE International Conference on Multimedia Information Processing and Retrieval (MIPR 2022)
- Session Chair of the 47th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2022)

## 👤 会议程序委员会委员

- AAI Conference on Artificial Intelligence (AAAI), 2022-2023
- IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2020-2023
- IEEE International Conference on Image Processing (ICIP), 2019-2023
- IEEE International Conference on Multimedia and Expo (ICME), 2021-2023

- IEEE International Symposium on Biomedical Imaging (ISBI), 2023
- IEEE International Symposium on Circuits & Systems (ISCAS), 2023

## ■ 期刊审稿人

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- IEEE Signal Processing Magazine
- IEEE Transactions on Pattern Analysis and Machine Intelligence
- IEEE Transactions on Image Processing
- IEEE Transactions on Signal Processing
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Multimedia
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Transactions on Medical Imaging
- IEEE Transactions on Computational Imaging
- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Broadcasting
- IEEE Signal Processing Letters
- ACM Transactions on Multimedia Computing, Communications, and Applications
- SIAM Journal on Imaging Sciences
- Inverse Problems
- Pattern Recognition
- Information Fusion
- Neurocomputing
- Signal Processing
- Signal Processing: Image Communication
- Digital Signal Processing
- Journal of Visual Communication and Image Representation
- The Visual Computer
- IET Image Processing