

Yao Zhang

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Born: Oct 13, 1989—Pei County, China

Nationality: Chinese

Current position

Postdoctoral Researcher at faculty of Electrical Engineering and Computer Science, Ningbo University.

Academic Plan

Applied Mathematician in Theoretical Physics, specializing in the application of Partial Differential Equations and Differential Geometry.

Areas of specialisation

- Maxwell's Equations
- Schrödinger Equation
- Einstein Field Equations
- Magnetohydrodynamic Equations
- Artificial Intelligence in the Sciences and Engineering

Appointments held

2014.5-2016.5 Assistant Engineer, Wuxi Bishiden Technology Co. Ltd, Wuxi, China
2019.7-2020.8 Research Assistant, National Astronomical Observatories, Chinese Academy of Sciences, China

Education

2014.6 received the B.S. degree in Mathematics, Shenzhen University
2019.6 received the M.S. degree in Applied Mathematics, Shenzhen University
2024.9 received the PhD degree in Astronomy, University of Chinese Academy of Sciences

Scholarly Exchange

2018.5—2018.11 Department of Mathematics, Southern Illinois University, Carbondale

Publications

JOURNAL ARTICLES

- 2019a M. Li, Y. Zhang*, M. Xiao, C. Xu and W. Zhang (2019), "On Schatten-q Quasi-Norm Induced Matrix Decomposition Model For Salient Object Detection", Pattern Recognition 96, December 2019, 106975.
- 2023 M. Li, Y. Zhang*, M. Xiao, W. Zhang and X. Sun (2023), "Unsupervised Learning for Salient Object Detection via Minimization of Bilinear Factor Matrix Norm", IEEE Transactions On Neural Networks and Learning Systems 34(3):1354—1366, corresponding author.
- 2024a Y. Zhang*, L. Xu and Y. Yan (2024), "Machine-Learning-Based Numerical Solution for Low and Lou's Nonlinear Force-Free Field Equilibria", Solar Physics 299(108).
- 2024b Y. Zhang*, L. Xu and Y. Yan. (2024), "Physics-informed Neural Network for Force-free Magnetic Field Extrapolation", Research in Astronomy and Astrophysics 24(10).

CONFERENCE ARTICLES

- 2017 Y. Zhang* and M. Li (2017). "Motion segmentation using collaborative low-rank and sparse subspace clustering", The 13th International Conference on Computational Intelligence and Security, Hong Kong, 2017.
- 2019b Y. Yang, M. Li and Y. Zhang* (2019). "Saliency detection based on non-convex weighted surrogates", The 3rd International Symposium on Image Computing and Digital Medicine, China.