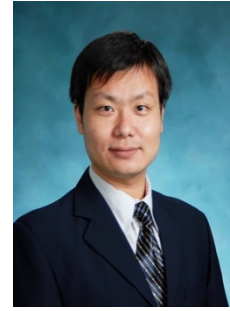


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Academic Qualification

- Ph.D. in Computer Technology and Application, Macau University of Science and Technology
- M.S. in Computational Mathematics, Fudan University
- B.S. in Information and Computing Science, Fudan University

Teaching Area

- Open-Source Tool for Data Science (with support from @DataCamp)
- Advanced Topics in Applied Mathematics (Inverse Problem)
- Reinforcement Learning (for Bachelor)

Research Area

- Machine Learning and its applications (Deep Learning, Reinforcement Learning)
- Data Science
- High Performance Computing
- Inverse Problem

Working Experience

- 2025.7 - Now: Professor, Macau University of Science and Technology
- 2018.7 - 2025.6: Associate Professor, Macau University of Science and Technology
- 2013.7 - 2018.6: Assistant Professor, Macau University of Science and Technology
- 2007.9 - 2013.6: Lecturer, Macau University of Science and Technology
- 2018.1 - 2018.3: Scholar Visitor in UCLA, USA
- 2011.7 - 2011.8: Short-Term Visiting in Tampere University of Technology, Finland

Academic Publication (selected, *Corresponding author)

- Guo Wenxiu, **Lu Xiao-Ping***, Vong Seakweng, Zhang Yongxiong, Zheng Hua. A parallel iteration method based on two-stage multisplitting for solving horizontal linear complementarity problems. *Numerical Algorithms*. 2026. [JCR Q1, IF:7.5]
- Guo Wenxiu, Zheng Hua, **Lu Xiao-Ping***, Zhang Yongxiong, Vong Seakweng. A two-stage parallel iteration method for nonlinear complementarity problems. *Applied Mathematics and Computation*. 512:129777, 2026. [JCR Q1, IF:3.5]
- Zhao Huijia, **Lu Xiao-Ping***, Di Kaichang. Arbitrary-Scale Planetary Remote Sensing Super-Resolution via Adaptive Frequency–Spatial Neural Operator. *Remote Sensing*. Vol.17, P3718, 2025. [JCR Q1, IF:4.2]
- Zhou Chujin, Huang Yuling, Kong Yuting, **Lu Xiao-Ping***. Enhancing trading strategies by combining incremental reinforcement learning and self-supervised prediction. *Expert Systems With Applications*. 289:128297, 2025. [JCR Q1, IF:7.5]
- Zhao Huijia, Lu Jie, Guo Wenxiu, **Lu Xiao-Ping***. Neural Operator for Planetary Remote Sensing Super-Resolution with Spectral Learning. *Mathematics*. 12, 3461, 2024. [JCR Q1, IF:2.3]
- Huang Yuling, Zhou Chujin, Cui Kai, **Lu Xiao-Ping***. Improving algorithmic trading consistency via human alignment and imitation learning. *Expert Systems With Applications*. 253:124350, 2024. [JCR Q1, IF:7.5]
- Yan Jin, Chen Zongren, Pei Zhiyuan, **Lu Xiao-Ping***, Zheng Hua. MambaSR: Arbitrary-Scale Super-Resolution Integrating Mamba with Fast Fourier Convolution Blocks. *Mathematics*. 12, 2370, 2024. [JCR Q1, IF:2.3]
- Cui Kai, Huang Yuling, Li Xuanfeng, Li Jianqing, **Lu Xiao-Ping***, Chui Tin-Cheng. PSDNet: Plant Status Detection Network Utilized in an Intelligent Bougainvillea Glabra Sensing and Watering System. *IEEE Sensors Journal*. 24:11, 2024. [JCR Q1, IF:4.3]
- Zhou Chujin, Huang Yuling, Cui Kai, **Lu Xiao-Ping***. R-DDQN: Optimizing Algorithmic Trading Strategies Using a Reward Network in a Double DQN. *Mathematics*. 12, 1621, 2024. [JCR Q1, IF:2.3]
- Guo Wenxiu, Zheng Hua, **Lu Xiao-Ping***, Zhang Yongxiong. On the two-stage multisplitting iteration methods for

- linear complementarity problems. *Applied Mathematics and Computation*. 475:128741, 2024. [JCR Q1, IF:3.5]
- Guo Wenxiu, **Lu Xiao-Ping***, Zheng Hua. A two-step iteration method for solving vertical nonlinear complementarity problems. *AIMS Mathematics*. 9(6):14358-14375, 2024. [JCR Q1, IF:1.8]
 - Huang Yulin, Wan Xiaoxiao, Zhang Lin, **Lu Xiao-Ping***. A novel deep reinforcement learning framework with BiLSTM-Attention networks for algorithmic trading. *Expert Systems with Applications*. 240:122581, 2024. [JCR Q1, IF:7.5]
 - **Lu Xiao-Ping***, Zhang Yongxiong, Zhao Haibin, Zheng Hua, Di Kaichang. Modeling Binary Asteroids: Integrating Orbital and Rotational Motion for Physical Property Inversion. *The Astrophysical Journal*. 961:154, 2024. [JCR Q1, IF:4.8]
 - Huang Yulin, Zhou Chujin, Cui Kai, **Lu Xiao-Ping***. A Multi-agent reinforcement learning framework for optimizing financial trading strategies based on TimesNet. *Expert Systems with Applications*. 237:121502, 2024. [JCR Q1, IF:7.5]
 - Huang Yulin, **Lu Xiao-Ping***, Zhou Chujin, Song Yunlin. DADE-DQN: Dual Action and Dual Environment Deep Q-Network for Enhancing Stock Trading Strategy. *Mathematics*. 11(17):3626, 2023. [JCR Q1, IF:2.3]
 - Zhang Yongxiong, Zheng Hua, **Lu Xiao-Ping***, Vong Seakweng. Modulus-based synchronous multisplitting iteration methods without auxiliary variable for solving vertical linear complementarity problems. *Applied Mathematics and Computation*. Vol. 458, P. 128248, 2023. [JCR Q1, IF:3.5]
 - Zhang Yongxiong, Zheng Hua, Vong Seakweng, **Lu Xiao-Ping***. Two-step parallel iteration method for large sparse horizontal linear complementarity problems. *Applied Mathematics and Computation*. Vol.438, P.127609, 2023. [JCR Q1, IF:3.5]
 - Zhang Yongxiong, **Lu Xiao-Ping***, Guo Tan, Li Xinran. Fast asteroidal period inversion by parallel acceleration-based three-step reduced voting. *Advances in Space Research*. Vol.71, No.8, P.3479, 2023. [JCR Q1, IF:2.8]
 - Guo Tan, **Lu Xiao-Ping***, Yu Keping, Zhang Yongxiong, Wei Wei. Integration of Light Curve Brightness Information and Layered Discriminative Constrained Energy Minimization for Automatic Binary Asteroid Detection. *IEEE Transactions on Aerospace and Electronic Systems*. Vol.58, No.6, P.4984, 2022. [JCR Q1, IF:5.1]
 - Guo Tan, **Lu Xiao-Ping***, Zhang Yongxiong, Yu Keping. Neighboring Discriminant Component Analysis for Asteroid Spectrum Classification. *Remote Sensing*. Vol.13, P3306, 2021. [JCR Q1, IF:4.2]
 - Han Hui-Jie, **Lu Xiao-Ping***, Yang Ya-Zhou, Zhang Hao and Admire Muchimamui Mutelo. Study of the Modified Gaussian Model on olivine diagnostic spectral features and its applications in space weathering experiments. *Research in Astronomy and Astrophysics*. Vol. 21, No.5, 2021. [JCR Q3, IF:1.8]
 - Hui-Jie Han, **Lu Xiao-Ping***, Te Jiang, Chih-Hao Hsia, Ya-Zhou Yang, Peng-Fei Zhang, Hao Zhang. Spectral deconvolution analysis on Olivine-Orthopyroxene mixtures with simulated space weathering modifications. *Research in Astronomy and Astrophysics*. Vol. 20, No. 8, P.129, 2020. [JCR Q3, IF:1.8]
 - **Lu Xiao-Ping**, David Jewitt. Dependence of Light Curves on Phase Angle and Asteroid Shape. *The Astronomical Journal*. 158:220, 2019. [JCR Q1, IF:5.1]
 - Cellino, D. Hestroffer, **Lu Xiao-Ping**, K. Muinonen, P. Tanga. Inversion of HIPPARCOS and Gaia photometric data for asteroids - Asteroid rotational properties from sparse photometric data. *Astronomy & Astrophysics*. Vol.631, A67, 2019. [JCR Q1, IF:5.4]
 - **Lu Xiao-Ping**, Huang XiangJie, Ip WingHuen, Hsia ChiHao. Lebedev acceleration and comparison of different photometric models in the inversion of lightcurves for asteroids. *Planetary and Space Science*. Vol. 153, P1-10, 2018. [JCR Q3, IF:1.8]
 - **Lu Xiao-Ping**, Ip WingHuen, Huang XiangJie, Zhao HaiBin. Analysis for Cellinoid shape model in inverse process from lightcurves. *Planetary and Space Science*. Vol. 135, P74-85, 2017. [JCR Q3, IF:1.8]
 - **Lu Xiao-Ping**, Cellino Alberto, Hestroffer Daniel, Ip WingHuen. Cellinoid Shape model for Hipparcos Data, *Icarus*. Vol. 267, P24-33, 2016. [JCR Q2, IF:2.5]
 - **Lu Xiao-Ping**, Ip WingHuen. Cellinoid Shape model for multiple light curves. *Planetary and Space Science*. Vol. 108, P31-40,2015. [JCR Q3, IF:1.8]
 - **Lu Xiao-Ping**, Zhao Haibin, You Zhong. A Fast Ellipsoid Model for Asteroids Inverted From Lightcurves. *Research in Astronomy and Astrophysics*. Vol.13, NO. 4, P465-472, 2013. [JCR Q3, IF:1.8]
 - M. Kaasalainen, **Lu Xiao-Ping**, A. Vonttinen. Optimal Computation of Brightness Integrals Parametrized on the Unit Sphere. *Astronomy & Astrophysics*. Vol.539, A96, 2012. [JCR Q1, IF:5.4]

Research Projects

- Observation and Research of Asteroidal Lightcurves with Large Scale Sampling

(FDCT) 2014.10 -- 2017.10, PI, \$1,522,000MOP

- Scattering Characteristic Research for Asteroids

(CAS) 2016.01 -- 2017.12, PI, \$40,000RMB

- Improvement of calculating photometric brightness based on Cellinoid shape model for asteroids

(FDCT) 2018.12 -- 2020.06, PI, \$389,400MOP

- Identify and classify binary asteroids by machine learning

(FDCT) 2019.09 -- 2022.09, PI, \$1,543,300MOP

- Smart Garden Expert Decision System

(FDCT-Industry-University-Research Collaboration) 2021.09 -- 2022.08, PI, \$60,000MOP

- Deep Learning based Super-Resolution Enhancement for Planetary Remote Sensing Images

(FDCT) 2023.01 -- 2024.12, PI, \$743,000MOP

- AI identification system for plant diseases and pests

(FDCT-Industry-University-Research Collaboration) 2024.12 -- 2025.11, PI, \$100,000MOP

- Research on Asteroid shape inversion algorithm based on fusion data of radar and lightcurves

(FDCT) 2025.09 -- 2028.09, PI, \$1,672,000MOP