

Xianliang Li

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Tokyo, Japan

Research interests

Deep Learning Theory, Optimization

Education

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|---------------------------|-----------------------------------------------------------------------------------------------|
| 2025 – 2028
(Expected) | The Graduate University for Advanced Studies, SOKENDAI
Ph.D. in Statistical Science |
| 2022 – 2025 | University of Chinese Academy of Sciences
M.Eng. in Computer Technology |
| 2018 – 2022 | Sun Yat-sen University
B.S. in Physics |

Publications

* - equal contribution, † - corresponding author.

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| 2025 | Time-of-Arrival Simultaneous Sensor and Target Localization with Dynamic Optimal Sensor Placements
Xianliang Li, Sheng Xu [†] , K. C. Ho.
<i>IEEE Transactions on Aerospace and Electronic Systems.</i> |
| 2025 | AOA Sensor Placement for Anchor-Assisted Target Localization in GNSS-Denied Environment: Formulation, Bounds and Optimization
Sheng Xu, Linlong Wu, Xianliang Li, Xinyu Wu [†] , Tiantian Xu [†] .
<i>IEEE Transactions on Mobile Computing.</i> |
| 2025 | On the Performance Analysis of Momentum Method: A Frequency Domain Perspective
Xianliang Li*, Jun Luo*, Zhiwei Zheng*, Hanxiao Wang, Li Luo, Lingkun Wen, Linlong Wu, Sheng Xu [†] .
<i>International Conference on Learning Representations (ICLR).</i> |

- 2024 **Systematical Sensor Path Optimization Solutions for AOA Target Localization Accuracy Improvement with Theoretical Analysis**
 Sheng Xu, Bing Zhu, **Xianliang Li**, Xinyu Wu, Tiantian Xu[†].
IEEE Transactions on Vehicular Technology.
- 2024 **3D Source Tracking Using a Position-Unknown AOA Sensor with Measurement Drift and UAV Moving Direction Optimization**
 Rongrong Xu, Sheng Xu[†], Kaimin Cao, **Xianliang Li**, Jialiang Wang, Wujing Cao.
IEEE International Conference on Real-time Computing and Robotics.

Experience

- October 2025 –
Now **The Institute of Statistical Mathematics**, Research Assistant
 Mentors: Professor Han Bao.
- July 2025 –
Now **The Chinese University of Hong Kong**, Visiting Student
 Mentors: Professor Weiyang Liu.
- September 2023
– June 2025 **Shenzhen Institutes of Advanced Technology**, Research Student
 Mentors: Professor Sheng Xu.
 • Acted as the team leader and studied the optimizer of deep learning.
 • Studied sensor localization and estimation under Prof. Sheng Xu.
- 2019 – 2020 **Cantonese Association of Sun Yat-sen University**, President
 • Organized Cantonese cultural activities.

Awards

- 2025 – Present SOKENDAI Special Researcher.
Supported by JST SPRING, Japan Grant Number JPMJSP2104.

Technical skills

Coding & Software

Familiar: Python, MATLAB, \LaTeX , PyTorch, Git. Basic: C++.

Languages

Cantonese: Native. Mandarin: Native. English: Competent.

Presentation

Presented research at machine learning conference: ICLR 2025.