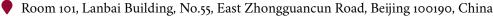
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Education

2021.09 – current **Ph.D.**

Ph.D. student in computational mathematics.
Academy of Mathematics and System Science, Chinese Academy of Sciences; and University of Chinese Academy of Sciences

2017.09 - 2021.07

Bachelor in mathematics and applied mathematics School of Mathematical Sciences, Tongji University.

Publications

Journal articles

- Bin Gao, Renfeng Peng, and Ya-xiang Yuan. "Low-rank optimization on Tucker tensor varieties". In: *Mathematical Programming* (2025), pp. 1–51. ODI: 10.1007/s10107-024-02186-w.
- Bin Gao, Renfeng Peng, and Ya-xiang Yuan. "Riemannian preconditioned algorithms for tensor completion via tensor ring decomposition". In: *Computational Optimization and Applications* 88 (2024), pp. 443–468. ODI: 10.1007/s10589-024-00559-7.
- Ling-Xi Zhang, Ren-Feng Peng, and Jun-Feng Yin. "A second order numerical scheme for fractional option pricing models". In: *East Asian J. Appl. Math* 11 (2021), pp. 326–348. ODOI: 10.4208/eajam.020820.121120.

Preprints

- Bin Gao, Renfeng Peng, and Ya-xiang Yuan. "First-order methods on bounded-rank tensors converging to stationary points". In: arXiv preprint arXiv:2503.04523 (2025).
- Chengkai Zhu, Renfeng Peng, Bin Gao, and Xin Wang. "Riemannian optimization for Holevo capacity". In: arXiv preprint arXiv:2501.11576 (2025).
- Bin Gao, Renfeng Peng, and Ya-xiang Yuan. "Desingularization of bounded-rank tensor sets". In: *arXiv* preprint *arXiv*:2411.14093 (2024).
- Bin Gao, Renfeng Peng, and Ya-xiang Yuan. "Optimization on product manifolds under a preconditioned metric". In: *arXiv preprint arXiv:2306.08873* (2023).

Skills

Languages

Mandarin Chinese, English.

Coding Ma

Matlab, C, C++, ੴEX, ...

& Awards and Achievements

2024/09

Loo-Keng Hua Scholarship.

2021/09

Loo-Keng Hua Scholarship.

Presentations