Renfeng Peng
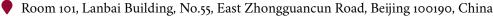
✉ pengrenfeng a.t. lsec.cc.ac.cn   🌐 http://jimmypeng1998.github.io/

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🎓 Education

2021.09 – current	**Ph.D. student in computational mathematics.** Academy of Mathematics and System Science, Chinese Academy of Sciences.
2017.09 – 2021.07	**Bachelor in mathematics and applied mathematics** School of Mathematical Sciences, Tongji University.

📄 Publications

1. B. Gao, R. Peng, and Y.-x. Yuan, "Low-rank optimization on Tucker tensor varieties," *Mathematical Programming*, pp. 1–51, 2025. 🔗 DOI: 10.1007/s10107-024-02186-w.

2. C. Zhu, R. Peng, B. Gao, and X. Wang, "Riemannian optimization for Holevo capacity," *arXiv preprint arXiv:2501.11576*, 2025.

3. B. Gao, R. Peng, and Y.-x. Yuan, "Desingularization of bounded-rank tensor sets," *arXiv preprint arXiv:2411.14093*, 2024.

4. B. Gao, R. Peng, and Y.-x. Yuan, "Riemannian preconditioned algorithms for tensor completion via tensor ring decomposition," *Computational Optimization and Applications*, vol. 88, pp. 443–468, 2024. 🔗 DOI: 10.1007/s10589-024-00559-7.

5. B. Gao, R. Peng, and Y.-x. Yuan, "Optimization on product manifolds under a preconditioned metric," *arXiv preprint arXiv:2306.08873*, 2023.

6. L.-X. Zhang, R.-F. Peng, and J.-F. Yin, "A second order numerical scheme for fractional option pricing models," *East Asian J. Appl. Math*, vol. 11, pp. 326–348, 2021. 🔗 DOI: 10.4208/eajam.020820.121120.

💡 Skills

Languages	Mandarin Chinese, English.
Coding	Matlab, C, C++, LaTeX, …

🏅 Awards and Achievements

2024/09	**Loo-Keng Hua Scholarship**.
2021/09	**Loo-Keng Hua Scholarship**.

🖥 Presentations

2024/11	**The 7th PKU PhD Symposium for Applied Mathematics**. Beijing, China.