Meihao Liao

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Beijing Institute of Technology (BIT), China

Education

- **Beijing Institute of Technology** *September 2020 - Now*
  Ph.D. in computer science Beijing, China
  - Supervisor: Rong-Hua Li

- **Beijing Institute of Technology** *September 2016 - June 2020*
  B.Eng. in Computer Science and Engineering Beijing, China

Research Direction

My general research interest lies in spectral graph theory, numerical linear algebra and their applications in graph data management, graph machine learning, etc. I'm interested in efficient implementations of theoretically fast algorithms.

Publications

C=Conference, J=Journal, S=In Submission, T=Thesis

[C.1] **Meihao Liao**, Yueyang Pan, Rong-Hua Li, Guoren Wang. Efficient Exact Resistance Distance Computation on Small-Treewidth Graphs: A Labelling Approach. In SIGMOD, 2026.

[C.2] **Meihao Liao**, Cheng Li, Rong-Hua Li, Guoren Wang. Efficient Index Maintenance for Effective Resistance Computation on Evolving Graphs. In SIGMOD, 2025.

[C.3] **Meihao Liao**, Junjie Zhou, Rong-Hua Li, Qiangqiang Dai, Hongyang Chen, Guoren Wang. Efficient and Provable Effective Resistance Computation on Large Graphs: an Index-based Approach. In SIGMOD, 2024.

[C.4] **Meihao Liao**, Rong-Hua Li, Qiangqiang Dai, Hongyang Chen, Hongchao Qin, Guoren Wang. Efficient Resistance Distance Computation: The Power of Landmark-based Approaches. In SIGMOD, 2023.

[C.5] **Meihao Liao**, Rong-Hua Li, Qiangqiang Dai, Hongyang Chen, Hongchao Qin, Guoren Wang. Efficient Personalized PageRank Computation: The Power of Variance-Reduced Monte Carlo Approaches. In SIGMOD, 2023.

[C.6] **Meihao Liao**, Rong-Hua Li, Qiangqiang Dai, Guoren Wang. Efficient Personalized PageRank Computation: A Spanning Forests Sampling Based Approach. In SIGMOD, 2022.

[C.7] Junjie Zhou, **Meihao Liao**, Rong-Hua Li, Longlong Lin, Guoren Wang. One Index for All: Towards Efficient Personalized PageRank Computation for Every Damping Factor. In SIGMOD, 2026.

[C.8] Yichun Yang, Rong-Hua Li, **Meihao Liao**, Guoren Wang. Improved Algorithms for Effective Resistance Computation on Graphs. In COLT, 2025.

[C.9] Xunkai Li, **Meihao Liao**, Zhengyu Wu, Daohan Su, Wentao Zhang, Rong-Hua Li, Guoren Wang. LightDiC: A Simple yet Effective Approach for Large-scale Digraph Representaion Learning. In VLDB, 2024.

[C.10] Qiangqiang Dai, Rong-Hua Li, Donghang Cui, **Meihao Liao**, Yu-Xuan Qiu, Guoren Wang. Efficient Maximal Biplex Enumerations with Improved Worst-Case Time Guarantee. In SIGMOD, 2024.

[C.11] Zening Li, Rong-Hua Li, **Meihao Liao**, Fusheng Jin, Guoren Wang. Privacy-Preserving Graph Embedding based on Local Differential Privacy. In CIKM, 2024.

[C.12] Qiangqiang Dai, Rong-Hua Li, **Meihao Liao**, Guoren Wang. Maximal Defective Clique Enumeration. In SIGMOD, 2023.

[C.13] Qiangqiang Dai, Rong-Hua Li, Xiaowei Ye, **Meihao Liao**, Weipeng Zhang, Guoren Wang. Hereditary Cohesive Subgraphs Enumeration on Bipartite Graphs: The Power of Pivot-based Approaches. In SIGMOD, 2023.

[C.14] Qiangqiang Dai, Rong-Hua Li, **Meihao Liao**, Hongzhi Chen, Guoren Wang. Fast Maximal Clique Enumeration on Uncertain Graphs: A Pivot-based Approach. In SIGMOD, 2022.

[C.15] Qiangqiang Dai, Rong-Hua Li, Hongchao Qin, **Meihao Liao**, Guoren Wang. Scaling Up Maximal k-plex Enumeration. In CIKM, 2022.

[S.1] **Meihao Liao**, Rong-Hua Li, Qiangqiang Dai, Hongyang Chen, Guoren Wang. Scalable Algorithms for Laplacian Pseudo-inverse Computation. In Submission.

Honors and Awards

- **National Scholarship (¥30,000)** *December, 2025*
  Ministry of Education of the People's Republic of China
- **National Scholarship (¥30,000)** *December, 2023*
  Ministry of Education of the People's Republic of China
- **Baidu Scholarship Nominee (20 people in the world)** *January, 2025*
  Baidu Company
- **ByteDance Scholarship Nominee (40 people in the world)** *December, 2024*
  ByteDance Company

Academic Service

- **Program Committee Member: KDD 2024, WWW 2025**
- **Journal Reviewer: TODS, TKDE, TKDD**