

Research Projects

As a Principal Investigator (PI):

[External grants]

1. **PI** (Co-I: B. Cautis and S. Maniu) – *Discovering and Querying Meta-Graphs in Large Heterogeneous Information Networks* (RGC **GRF**, Ref: 17229116, 2016-18). Amount: HKD 675,647.
2. **PI** (Co-I: W. Fan and P. Senellart) – *Efficient Query Algorithms for Uncertain Graph Databases* (RGC **GRF**, Ref: 17205115, 2015-17). Amount: HKD 462,528.
3. **PI** (Co-I: K. Rothermel and M. L. Yiu) – *UV-Diagram: A Voronoi Diagram for Uncertain Spatial Databases* (RGC **GRF**, Ref: 711110, 2011-13). Amount: HKD 746,400.
4. **PI** – Universitas 21 Fellowship 2011-12 (for visiting Prof. Anthony Tung, School of Computing, the National University of Singapore in July-August 2011. Amount: HKD 50,000. *(Completed)*)
5. **PI** (Co-I: K. Rothermel and D. Olteanu) – *Scalable Cleaning of Probabilistic Databases with Quality Guarantees* (RGC **GRF**, Ref: 711309E, 2010-12). Amount: HKD 696,500 *(Completed)*.
6. **PI** (Co-I: K. Rothermel) – *Scalable Continuous Query Processing on Imprecise Location Data* (RGC **GRF**, Ref: 513508, 2009-11). Amount: HKD 645,950 *(Completed)*.
7. **PI** (Co-I: K. Rothermel) – *Adaptive Filters for Continuous Queries over Constantly-Evolving Data Streams* (RGC **CERG**, Ref: 513307, 2008-10). Amount: HKD 391,512 *(Completed)*.
8. **PI** (Co-I: E. Bertino and S. Prabhakar) – *Privacy Protection in Location-based Services with Location Cloaking* (RGC **CERG**, Ref: 513806, 2007-09). Amount: HKD 356,000 *(Completed)*.
9. **PI** (project partner: K. Rothermel) – *Efficient Protocols for Quality-Aware Querying of Sensor Data in Pervasive Environments*, RGC Germany/Hong Kong Joint Research Scheme 2006/2007. Ref: G_HK013/06, Amount: HKD 59,600 *(Completed)*

[Internal grants]

10. **PI** – *Managing Uncertainty of Heterogeneous Big Multimedia Data* (Seed Funding Programme for Basic Research), HKU. Ref: 104004572, 2017-18). Amount: HKD 44,320.
11. **PI** – *Managing Quality of Big Traffic Data*. HKU 37th Round PDF/RAP Scheme (for recruitment of a postdoctoral researcher in years 2017-18).
12. **PI** – *Scalable, Effective and Privacy-Aware Location-based Services for Big Traffic Data* (Seed Funding for Incubating Group-based Collaborative Research - CRF), HKU. Ref: 102009508, 2016-18). Amount: HKD 100,000.
13. **PI** – *LAPS: A Scalable Location-Aware Publish/Subscribe System* (Seed Funding Programme for Basic Research), HKU. Ref: 104004129, 2016-17). Amount: HKD 34,490.
14. **PI** – *Managing Crowdsourced Databases: A Probabilistic Approach* (Seed Funding Programme for Basic Research), HKU. Ref: 201411159171, 2015-16). Amount: HKD 44,925.
15. **PI** – *Effective Noise Removal Algorithms for Ambiguous Databases* (Seed Funding Programme for Basic Research), HKU. Ref: 201311159095, 2014-15). Amount: HKD 47,900.
16. **PI** – *Query-Efficient Representations of Uncertain Graphs* (Seed Funding Programme for Basic Research), HKU. Ref: 201211159083, 2013-14). Amount: HKD 154,200.
17. **PI** – *Travel Grants* for University Academic Staff to Visit Universities in Taiwan (National Chiao Tung University, Prof. Wen-Chih Peng, July 28 – August 4, 2013, with an award amount of HKD 9,600)
18. **PI** – *Management of Large-Scale Uncertain Databases*. HKU Engineering Postdoctoral Fellow Programme (for recruitment of a postdoctoral researcher in years 2010-12).
19. **PI** – *Probing Imprecise Sensor Data with Quality Guarantees* (Seed Funding Programme for Basic Research), HKU. Ref: 200808159002, 2008-10). Amount: HKD 240,000. *(Completed)*
20. **PI** (Co-I: D. Yau) - *Efficiency of Privacy Preservation Mechanisms in Routing over the Internet* (Internal Research Grant (**ICRG**), PolyU. Ref: A-PH09, 2006-08). Amount: HKD 120,000. *(Completed)*
21. **PI** (Co-I: D. Yau) – *Protecting Network Privacy with Spatial and Temporal Cloaking* (Internal Research Grant (**ICRG**), PolyU. Ref: A-PH39, 2007-08). Amount: HKD 120,000. *(Completed)*

As a Co-Investigator (co-I):

22. **Co-I** (PI: N. Mamoulis) – *Query Suggestion for Geo-Textual Data* (RGC CERG. Ref: 17205015, 2016-18). Amount: HKD 496,028.
23. **Co-I** (PI: Lo Chi Lik Eric) – *Online Analytical Processing on Big Sequence Data* (RGC CERG. Ref: 521012E, 2012-13). Amount: HKD 700,000.
24. **Co-I** (PI: J. Cheng (SIAT)) – *Fast Algorithms for Analyzing Large Uncertain Graphs* (NSF China, Project for Young Scientists Fund, 2012-14. Amount: RMB 220,000.
25. **Co-I** (PI: W. Wu (SYSU)) -- *Cooperative Caching in Wireless Mesh Networks* (NSF China, Project for Young Scientists Fund, General Program, 2009-11. Amount: RMB 200,000.
26. **Co-I** (PI: D. Wang) – *Proactive Data Sweeping and Adaptive Communication for Efficient Data Collection in Sensor Networks* (RGC CERG. Ref: 530508, 2009-10). Amount: HKD 346,060.
27. **Co-I** (PI: Y. Tao) – *Query Processing on Historical Uncertain Spatiotemporal Data* (RGC CERG. Ref: 120206, 2006-07). Amount: HKD 961,920. (Completed)
28. **Co-I** (PI: Y. Liu) – *Hierarchical Multimedia Database for Semantic-based Multimedia Retrieval* (Internal Research Grant, PolyU, 2006-08. Ref: A-PH11). Amount: HKD 120,000.

29. **Affiliated Member** (PI: J. Ng) – *A Research Center for Ubiquitous Computing* (Central Allocation Group Research Projects, RGC, 2006-09, HKBU 1/05C)
30. **Member**, StruFus: Infrastructure for Information Fusion (joint project with U. Skövde, HKU, HKBU, IIT Bombay, U. Wuhan, 2008-09)

Teaching-Related Projects

1. **PI** – *The Development of the Common Core Course “The Age of Big Data”* (Teaching Development Grant (TDG), HKU, 2015. Ref: **101000560**). **Amount: HKD 50,000.**
2. **Course Coordinator** (teacher: Dr. Ben Kao, Dr. Nikos Mamoulis, Dr. W.S. Ho) – *Handling Information in Everyday Life, University Common Core Course Stage I teaching proposal*, HKU, selected to proceed to Stage II under the AoI of “Scientific & Technological Literacy”. *Acceptance rate: 59.4%, 57/96, 2010.*
3. **Member** (PC: C. K. Chui) – *Kids can code* (Knowledge Exchange (KE) Funding Exercise, HKU, 2015-16, KE-IP-2015/16-35). Amount: HKD 100,000.
4. **Co-I** (PI: M. Wang) – *Support Self-Directed Learning in Interdisciplinary Studies by Developing a Knowledge Visualization and Navigation System* (Teaching Development Grant (TDG), HKU, 2009-11). Amount: HKD 268,240.
5. **Co-I** (PI: G. Ngai) – *PANDA: A Multi-User Platform for Teaching Computer Programming* (Learning and Teaching Development Grants, PolyU, 2006-07). Amount: HKD 100,000. (Completed)

9-Aug-17