

## **Kyriakos MOURATIDIS**

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### **Education**

PhD, Hong Kong University of Science & Technology, 2006  
Bachelor of Science, Aristotle University of Thessaloniki, Greece, 2002

### **Academic Appointments**

Professor of Computer Science, School of Computing and Information Systems, SMU, Jul 2022 - Present  
Associate Professor of Computer Science, School of Computing and Information Systems, SMU, Apr 2021 - Jun 2022  
Associate Professor of Information Systems, School of Computing and Information Systems, SMU, Jul 2013 - Mar 2021  
Assistant Professor of Information Systems, School of Computing and Information Systems, SMU, Jul 2006 - Jun 2013  
Lecturer of Information Systems, School of Computing and Information Systems, SMU, May 2006 - Jun 2006

### **Academic Administrative Positions**

Faculty Senate, Office of the Provost, SMU, Apr 2025 - Present  
Programme Director, Masters of Applied Information Systems, School of Computing and Information Systems, SMU, Jul 2016 - Jun 2018  
Programme Head, Masters of Applied Information Systems (MAIS), School of Computing and Information Systems, SMU, Jul 2014 - Jun 2016

### **Awards and Honors**

Distinguished Associate Editor Award, ACM SIGMOD, 2024  
Distinguished Vice PC Chair Award, ACM SIGSPATIAL, 2024  
Nominated for SMU Teaching Excellence in Postgraduate Professional Programmes Award 2022, Singapore Management University, 2022  
Lee Kong Chian Research Fellowship, Lee Foundation, 2018  
CSD Alumni Award (1 of the 4 alumni chosen to receive the award in 25 years since the department was founded), Computer Science Department, Aristotle University of Thessaloniki, 2017

Long Service Award (10 years), Singapore Management University, 2016

Nominated for SMU Excellent Teacher Award 2016, Singapore Management University, 2016

Nominated for SMU Excellent Teacher Award 2015, Singapore Management University, 2015

Long Service Award (5 years), Singapore Management University, 2011

Nominated for SMU Most Promising Teacher Award 2009, Singapore Management University, 2009

Fellowship for Research Excellence, Lee Foundation, 2007

Scholarship for Academic Excellence (ranked 1st in class in 4th year of undergraduate study), State Scholarship Foundation, Greece, 2002

Scholarship to attend the 2002 Lecture Series in Computer Science with subject "The Data Avalanche: Reducing Information Overload", Onassis Foundation, Greece, 2002

Doctoral Studentship, Hong Kong University of Science and Technology, 2002

Scholarship for Academic Excellence (ranked 1st in class in 3rd year of undergraduate study), State Scholarship Foundation, Greece, 2001

## RESEARCH

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### Research Interests

Spatial and Spatiotemporal Databases

Location Based Services

Preference-based Queries

Location Privacy

### Publications

#### Journal Articles [Refereed]

Marrying top-k with skyline queries: Operators with relaxed preference input and controllable output size, by MOURATIDIS, Kyriakos; LI, Keming; TANG, Bo. (2025). *ACM Transactions on Database Systems*, 50 (1), 1-37. <https://doi.org/10.1145/3705726> (Published)

Quantifying the competitiveness of a dataset in relation to general preferences, by MOURATIDIS, Kyriakos; LI, Keming; TANG, Bo. (2024). *VLDB Journal*, 33 (1), 231-250. <https://doi.org/10.1007/s00778-023-00804-1> (Published)

On discovering motifs and frequent patterns in spatial trajectories with discrete Frechet distance, by TANG, Bo; YIU, Man Lung; MOURATIDIS, Kyriakos; ZHANG, Jiahao; WANG, Kai. (2022). *GeoInformatica*, 26 (1), 29-66. <https://doi.org/10.1007/s10707-021-00438-x> (Published)

Continuous Top-k Monitoring on Document Streams, by U, Leong Hou; ZHANG, Junjie; MOURATIDIS, Kyriakos; LI, Ye. (2017). *IEEE Transactions on Knowledge and Data Engineering*, 29 (5), 991-1003. <https://doi.org/10.1109/TKDE.2017.2657622> (Published)

Discovering historic traffic-tolerant paths in road networks, by LI, Pui Hang; YIU, Man Lung; MOURATIDIS, Kyriakos. (2017). *GeoInformatica*, 21 (1), 1-32. <https://doi.org/10.1007/s10707-016-0265-y> (Published)

Best upgrade plans for single and multiple source-destination pairs, by LIN, Yimin; MOURATIDIS, Kyriakos. (2015). *GeoInformatica*, 19 (2), 365-404. <http://dx.doi.org/10.1007/s10707-014-0219-1> (Published)

Joint Search by Social and Spatial Proximity, by MOURATIDIS, Kyriakos; LI, Jing; TANG, Yu; MARMOULIS,

Nikos. (2015). *IEEE Transactions on Knowledge and Data Engineering*, 27(3), 781-793. <https://doi.org/10.1109/TKDE.2014.2339838> (Published)

Direct neighbor search, by ZHANG, Jilian; MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2014). *Information Systems*, 44 73-92. <https://doi.org/10.1016/j.is.2014.03.003> (Published)

Enhancing Access Privacy of Range Retrievals over B<sup>+</sup>-Trees, by PANG, Hwee Hwa; ZHANG, Jilian; MOURATIDIS, Kyriakos. (2013). *IEEE Transactions on Knowledge and Data Engineering*, 25(7), 1533-1547. <https://doi.ieeecomputersociety.org/10.1109/TKDE.2012.77> (Published)

Efficient Evaluation of Continuous Text Search Queries, by MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2011). *IEEE Transactions on Knowledge and Data Engineering*, 23(10), 1469-1482. <https://doi.org/10.1109/TKDE.2011.125> (Published)

Optimal Matching between Spatial Datasets under Capacity Constraints, by LEONG, Hou U; MOURATIDIS, Kyriakos; YIU, Man Lung; MAMOULIS, Nikos. (2010). *ACM Transactions on Database Systems*, 35(2), 1-19. <https://doi.org/10.1145/1735886.1735888> (Published)

Continuous spatial assignment of moving users, by LEONG, Hou U; MOURATIDIS, Kyriakos; MAMOULIS, Nikos. (2010). *VLDB Journal*, 19(2), 141-160. <http://dx.doi.org/10.1007/s00778-009-0144-3> (Published)

k-Anonymity in the Presence of External Databases, by SACHARIDIS, Dimitris; MOURATIDIS, Kyriakos; PAPADIAS, Dimitris. (2010). *IEEE Transactions on Knowledge and Data Engineering*, 22(3), 392-403. <http://dx.doi.org/10.1109/TKDE.2009.120> (Published)

Anonymous Query Processing in Road Networks, by MOURATIDIS, Kyriakos; YIU, Man Lung. (2010). *IEEE Transactions on Knowledge and Data Engineering*, 22(1), 2-15. <http://dx.doi.org/10.1109/TKDE.2009.48> (Published)

Continuous Monitoring of Spatial Queries in Wireless Broadcast Environments, by MOURATIDIS, Kyriakos; Bakiras, Spiridon; Papadias, Dimitris. (2009). *IEEE Transactions on Mobile Computing*, 8(10), 1297-1311. <http://dx.doi.org/10.1109/TMC.2009.14> (Published)

Partially materialized digest scheme: an efficient verification method for outsourced databases, by MOURATIDIS, Kyriakos; SACHARIDIS, Dimitris; PANG, Hwee Hwa. (2009). *VLDB Journal*, 18(1), 363-381. <https://doi.org/10.1007/s00778-008-0108-z> (Published)

Tree-based partition querying: a methodology for computing medoids in large spatial datasets, by MOURATIDIS, Kyriakos; PAPADIAS, Dimitris; PAPADIMITRIOU, Spiros. (2008). *VLDB Journal*, 17(4), 923-945. <http://dx.doi.org/10.1007/s00778-007-0045-2> (Published)

Preventing location-based identity inference in anonymous spatial queries, by KALNIS, Panos; GHINITA, Gabriel; MOURATIDIS, Kyriakos; PAPADIAS, Dimitris. (2007). *IEEE Transactions on Knowledge and Data Engineering*, 19(12), 1719-1733. <http://dx.doi.org/10.1109/TKDE.2007.190662> (Published)

Continuous nearest neighbor queries over sliding windows, by MOURATIDIS, Kyriakos; PAPADIAS, Dimitris. (2007). *IEEE Transactions on Knowledge and Data Engineering*, 19(6), 789-803. <http://dx.doi.org/10.1109/TKDE.2007.190617> (Published)

Query processing in spatial databases containing obstacles, by ZHANG, Jun; PAPADIAS, Dimitris; MOURATIDIS, Kyriakos; ZHU, Manli. (2005). *International Journal of Geographical Information Science*, 19(10), 1091-1111. <http://dx.doi.org/10.1080/13658810500286935> (Published)

A threshold-based algorithm for continuous monitoring of k nearest neighbors, by MOURATIDIS, Kyriakos; PAPADIAS, Dimitris; BAKIRAS, Spiridon; TAO, Yufei. (2005). *IEEE Transactions on Knowledge and Data Engineering*, 17(11), 1451-1464. <http://dx.doi.org/10.1109/TKDE.2005.172> (Published)

Aggregate nearest neighbor queries in spatial databases, by PAPADIAS, Dimitris; TAO, Yufei; MOURATIDIS, Kyriakos; HUI, Chun Kit. (2005). *ACM Transactions on Database Systems*, 30(2), 529-576. <http://dx.doi.org/10.1145/1071610.1071616> (Published)

## Book Chapters

Computing Medoids in Large Spatial Datasets, by MOURATIDIS, Kyriakos; PAPADIAS, Dimitris; PAPADIMITRIOU, Spiros. (2009). In Harvey J. Miller & Han Jiawei (Ed.), *Geographic data mining and knowledge discovery* (pp. 189-226) Boca Raton, FL: CRC Press. <https://doi.org/10.1201/9781420073980>

(Published)

### Encyclopedia Entries

Dynamic nearest neighbor queries in Euclidean space, by NUTANONG, Sarana; ALI, Mohammed Eunos; TANIN, Egemen; MOURATIDIS, Kyriakos. (2017). In Shashi Shekhar, Hui Xiong & Xun Zhou (Ed.), *Encyclopedia of GIS* (pp. 496-501) Cham: Springer. [https://doi.org/10.1007/978-3-319-23519-6\\_1558-1](https://doi.org/10.1007/978-3-319-23519-6_1558-1) (Published)

Continuous Monitoring of Spatial Queries, by MOURATIDIS, Kyriakos. (2009). In Ozsu, M. Tamer; Liu, Ling (Ed.), *Encyclopedia of Database Systems* (pp. 479-484) New York: Springer Verlag. [http://dx.doi.org/10.1007/978-0-387-39940-9\\_82](http://dx.doi.org/10.1007/978-0-387-39940-9_82) (Published)

### Conference Proceedings

Graph Perturbation Analysis for Subgraph Counting, by XIAO, Hanhua; LI, Yuchen; MOURATIDIS, Kyriakos. *Proceedings of the ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD)*, Jeju, Korea: (Accepted)

FOCUS: Evaluating pre-trained vision-language models on underspecification reasoning, by ZHOU, Kankan; LAI, Eason; MOURATIDIS, Kyriakos; JIANG, Jing. (2025.0). *Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics, ACL 2025, Vienna, Austria, July 27 - August 1*, (pp. 27565-27584) Vienna, Austria: <https://doi.org/10.18653/v1/2025.acl-long.1337> (Published)

AlayaDB: The data foundation for efficient and effective long-context LLM inference, by DENG, Yangshen; YOU, Zhengxin; XIANG, Long; LI, Qilong; YUAN, Peiqi; HONG, Zhaoyang; ZHENG, Yitao; LI, Wanting; LI, Runzhong; LIU, Haotian; MOURATIDIS, Kyriakos; YIU, Man Lung; LI, Huan; SHEN, Qiaomu; MAO, Rui; TANG, Bo. (2025.0). *SIGMOD/PODS '25: Companion of the 2025 International Conference on Management of Data, Berlin, Germany, June 22-27, 2025*, (pp. 364-377) New York: ACM. <https://doi.org/10.1145/3722212.372442> (Published)

How to avoid jumping to conclusions: Measuring the robustness of outstanding facts in knowledge graphs, by XIAO, Hanhua; LI, Yuchen; WANG, Yanhao; KARRAS, Panagiotis; MOURATIDIS, Kyriakos; AVLONA, Natalia Rozalia. (2024.0). *Proceedings of the 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, KDD 2024, Barcelona, Spain, August 25-29, 2024*, (pp. 3539-3550) New York: ACM. <https://doi.org/10.1145/3637528.3671763> (Published)

ROME: Evaluating pre-trained vision-language models on reasoning beyond visual common sense, by ZHOU, Kankan; LAI, Eason; AU YEONG, Wei Bin; MOURATIDIS, Kyriakos; JIANG, Jing. (2023.0). *Findings of the Association for Computational Linguistics: EMNLP 2023, Singapore, December 6-10*, (pp. 10185-10197) Singapore: Association for Computational Linguistics. <https://aclanthology.org/2023.findings-emnlp.683/> (Published)

Opportunities for spatial database research in the context of preference queries, by MOURATIDIS, Kyriakos. (2023.0). *Proceedings of the 7th ACM SIGSPATIAL Workshop on Location-based Recommendations, Geosocial Networks and Geoadvertising, Hamburg, Germany, 2023 November 13*, (pp. 1-3) New York: ACM. <https://doi.org/10.1145/3615896.3628418> (Published)

On m-impact regions and standing top-k influence problems, by TANG, Bo; MOURATIDIS, Kyriakos; HAN, Mingji. (2021.0). *Proceedings of 2021 ACM SIGMOD International Conference on Management of Data, SIGMOD, Xi'an, China, June 20-25*, (pp. 1784-1796) China: ACM. (Published)

Marrying top-k with skyline queries: Relaxing the preference input while producing output of controllable size, by MOURATIDIS, Kyriakos; LI, Keming; TANG, Bo. (2021.0). *Proceedings of the 2021 International Conference on Management of Data, SIGMOD, China, June 20-25*, (pp. 1317-1330) Virtual Conference: ACM. (Published)

A common approach for consumer and provider fairness in recommendations, by Sacharidis, Dimitris; MOURATIDIS, Kyriakos; Klefogiannis, Dimitrios. (2019.0). *ACM RecSys'19: Late-Breaking Results (Posters), September 16-20, Copenhagen, Denmark*, (pp. 1-5) New York: ACM. <https://doi.org/10.1145/3298689.3346970> (Published)

Creating Top Ranking Options in the Continuous Option and Preference Space, by TANG, Bo; MOURATIDIS, Kyriakos; YIU, Man Lung; CHEN, Zhenyu. (2019.0). *Proceedings of the VLDB Endowment:*

45th VLDB 2019, Los Angeles, CA, August 26-30, (pp. 1181-1194) Stanford, CA: VLDB Endowment. <https://doi.org/10.14778/3339490.3339500> (Published)

Geometric top-K processing: Updates since MDM'16 [Advanced Seminar], by MOURATIDIS, Kyriakos. (2019.0). *2019 20th IEEE International Conference on Mobile Data Management: MDM, Hong Kong, June 10-13: Proceedings*, (pp. 1-3) Los Alamitos, CA: IEEE Computer Society. <https://doi.org/10.1109/MDM.2019.00-81> (Published)

Exact Processing of Uncertain Top-k Queries in Multi-criteria Settings, by MOURATIDIS, Kyriakos; TANG, Bo. (2018.0). *Proceedings of the VLDB Endowment: 44th VLDB 2018, August 27-31, Rio de Janeiro, Brazil*, (pp. 866-879) Stanford, CA: VLDB Endowment. <https://doi.org/10.14778/3204028.3204031> (Published)

Applying spatial database techniques to other domains: A case study on top-K and computational geometric operators [Invited Seminar], by MOURATIDIS, Kyriakos. (2018.0). *Proceedings of 5th International ACM SIGMOD Workshop on Managing and Mining Enriched Geo-Spatial Data, GeoRich 2018, Houston, United States, 2018 June 10-15*, (pp. 25-26) Houston, USA: Association for Computing Machinery, Inc. <https://doi.org/10.1145/3210272.3226094> (Published)

Continuous top-K monitoring on document streams (Extended abstract), by U, Leong Hou; ZHANG, Junjie; MOURATIDIS, Kyriakos; LI, Ye. (2018.0). *Proceedings of the 34th IEEE International Conference on Data Engineering: ICDE 2018, Paris, France, April 16-19*, (pp. 1803-1804) Paris, France: <https://doi.org/10.1109/ICDE.2018.00259> (Published)

Geometric Approaches for Top-k Queries, by MOURATIDIS, Kyriakos.. (2017.0). *Proceedings of the VLDB Endowment: 43rd VLDB, Munich, Germany, August 28-September 1, 2017*, (pp. 1985-1987) Stanford, CA: VLDB. (Published)

Determining the impact regions of competing options in preference space, by TANG, Bo; MOURATIDIS, Kyriakos; YIU, Man Lung.. (2017.0). *ACM SIGMOD International Conference on Management of Data, SIGMOD, Chicago, US, 2017 May 14-19*, Chicago, USA: (Published)

Efficient motif discovery in spatial trajectories using discrete Fréchet distance, by TANG, Bo; YIU, Man Lung; MOURATIDIS, Kyriakos; WANG, Kai. (2017.0). *Proceedings: 20th International Conference on Extending Database Technology: Advances in Database Technology EDBT 2017, Venice, Italy, March 21-24*, (pp. 378-389) Konstanz, Germany: Open Proceedings. <https://doi.org/10.5441/002/edbt.2017.34> (Published)

Geometric Aspects and Auxiliary Features to Top-k Processing [Advanced Seminar], by MOURATIDIS, Kyriakos. (2016.0). *2016 17th IEEE International Conference on Mobile Data Management MDM, June 13-16, Porto, Portugal: Proceedings*, (pp. 1-3) Porto, Portugal: IEEE Computer Society. <http://doi.org/10.1109/MDM.2016.79> (Published)

Joint Search by Social and Spatial Proximity [Extended Abstract], by MOURATIDIS, Kyriakos; LI, Jing; TANG, Yu; MAMOULIS, Nikos.. (2016.0). *ICDE 2016: IEEE 32nd International Conference on Data Engineering: May 16-20, 2016, Helsinki, Finland: Proceedings*, (pp. 1578-1579) Piscataway, NJ: IEEE. <http://dx.doi.org/10.1109/ICDE.2016.7498434> (Published)

Maximum rank query, by MOURATIDIS, Kyriakos; ZHANG, Jilian; PANG, Hwee Hwa. (2015.0). *Proceedings of the VLDB Endowment: 41st VLDB 2015, Kohala Coast, Hawaii, August 31-September 4*, (pp. 1554-1565) Saratoga, CA: VLDB Endowment. <https://doi.org/10.14778/2824032.2824053> (Published)

Historical Traffic-Tolerant Paths in Road Networks, by LI, Pui Hang; YIU, Man Lung; MOURATIDIS, Kyriakos. (2014.0). *SIGSPATIAL '14: Proceedings of the 22nd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems: 4-7 November 2014, 2014, Dallas*, (pp. 477-480) New York: ACM. <http://dx.doi.org/10.1145/2666310.2666483> (Published)

Global immutable region computation, by ZHANG, Jilian; MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2014.0). *SIGMOD '14: Proceedings of the 2014 ACM SIGMOD International Conference on Management of Data: Snowbird, UT, June 22-27*, (pp. 1151-1162) New York: ACM. <https://doi.org/10.1145/2588555.2610508> (Published)

Computing immutable regions for subspace top-k queries, by MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2013.0). *Proceedings of the VLDB Endowment: 39th VLDB 2013, August 26-30, Riva del Garda, Trento, Italy*, (pp. 73-84) New York: VLDB Endowment. <https://doi.org/10.14778/2535568.2448941> (Published)

Best Upgrade Plans for Large Road Networks, by LIN, Yimin; MOURATIDIS, Kyriakos. (2013.0). *Advances in*

*Spatial and Temporal Databases: 13th International Symposium, SSTD 2013, Munich, Germany, August 21-23, 2013: Proceedings*, (pp. 223-240) Heidelberg: Springer Verlag.  
[http://dx.doi.org/10.1007/978-3-642-40235-7\\_13](http://dx.doi.org/10.1007/978-3-642-40235-7_13) (Published)

Shortlisting Top-K Assignments, by LIN, Yimin; MOURATIDIS, Kyriakos. (2013.0). *SSDBM '13: Proceedings of the 25th International Conference on Scientific and Statistical Database Management: 29-31 July, Baltimore, New York*: ACM. <http://dx.doi.org/10.1145/2484838.2484859> (Published)

Strong location privacy: A case study on shortest path queries [Invited Paper], by MOURATIDIS, Kyriakos. (2013.0). *2013 IEEE 29th International Conference on Data Engineering Workshops (ICDEW): 8-12 April 2013, Brisbane, Australia*, (pp. 136-146) Piscataway, NJ: IEEE.  
<http://dx.doi.org/10.1109/ICDEW.2013.6547441> (Published)

Shortest Path Computation with No Information Leakage, by MOURATIDIS, Kyriakos; YIU, Man Lung. (2012.0). *Proceedings of the VLDB Endowment: 38th VLDB 2012, August 27-31, Istanbul, Turkey*, (pp. 692-703) New York: VLDB Endowment. <http://dx.doi.org/10.14778/2212351.2212352> (Published)

Spatial queries in wireless broadcast environments [Keynote speech], by MOURATIDIS, Kyriakos. (2012.0). *MobiDE 2012: Proceedings of the Eleventh ACM International Workshop on Data Engineering for Wireless and Mobile Access, May 20, 2012, Scottsdale, Arizona*, (pp. 39-44) New York: ACM.  
<http://dx.doi.org/10.1145/2258056.2258065> (Published)

Heuristic algorithms for balanced multi-way number partitioning, by ZHANG, Jilian; MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2011.0). *Proceedings of the Twenty-Second International Joint Conference on Artificial Intelligence, IJCAI-11: Barcelona, Catalonia, Spain, 16-22 July*, (pp. 693-698) Menlo Park, CA: AAAI Press. <https://doi.org/10.5591/978-1-57735-516-8/IJCAI11-122> (Published)

Shortest Path Computation on Air Indexes, by KELLARIS, Georgios; MOURATIDIS, Kyriakos. (2010.0). *Proceedings of the VLDB Endowment: VLDB'10, September 13-17, 2010, Singapore*, (pp. 747-757) New York: VLDB Endowment. <http://dx.doi.org/10.14778/1920841.1920936> (Published)

Efficient Verification of Shortest Path Search Via Authenticated Hints, by YIU, Man Lung; LIN, Yimin; MOURATIDIS, Kyriakos. (2010.0). *ICDE 2010: IEEE 26th International Conference on Data Engineering: Long Beach, California, USA, 1 - 6 March 2010*, (pp. 237-248) Los Alamitos, CA: IEEE Computer Society.  
<http://doi.ieeecomputersociety.org/10.1109/ICDE.2010.5447914> (Published)

Preference queries in large multi-cost transportation networks, by MOURATIDIS, Kyriakos; LIN, Yimin; YIU, Man Lung. (2010.0). *ICDE 2010: IEEE 26th International Conference on Data Engineering: Proceedings, Long Beach, California, USA, 1 - 6 March 2010*, (pp. 533-544) Los Alamitos, CA: IEEE Computer Society.  
<http://doi.ieeecomputersociety.org/10.1109/ICDE.2010.5447851> (Published)

Scalable verification for outsourced dynamic databases, by PANG, Hwee Hwa; ZHANG, Jilian; MOURATIDIS, Kyriakos. (2009.0). *Proceedings of the VLDB Endowment: VLDB 2009, Lyon, France, August 24-28*, (pp. 802-813) New York: VLDB Endowment. <https://doi.org/10.14778/1687627.1687718> (Published)

A Fair Assignment Algorithm for Multiple Preference Queries, by LEONG, Hou U; MAMOULIS, Nikos; MOURATIDIS, Kyriakos. (2009.0). *Proceedings of the VLDB Endowment: VLDB'09, August 24-28, Lyon, France*, (pp. 1054-1065) New York: VLDB Endowment. <http://dx.doi.org/10.14778/1687627.1687746> (Published)

Spatial cloaking revisited: Distinguishing information leakage from anonymity, by TAN, Kar Way; LIN, Yimin; MOURATIDIS, Kyriakos. (2009.0). *Advances in Spatial and Temporal Databases: 11th International Symposium, SSTD 2009 Aalborg, Denmark, July 8-10, 2009 Proceedings*, (pp. 117-134) Berlin: Springer Verlag. [https://doi.org/10.1007/978-3-642-02982-0\\_10](https://doi.org/10.1007/978-3-642-02982-0_10) (Published)

Efficient Evaluation of Multiple Preference Queries, by LEONG, Hou U; MAMOULIS, Nikos; MOURATIDIS, Kyriakos. (2009.0). *ICDE 2009: 25th IEEE International Conference on Data Engineering: Proceedings, 29 March-2 April 2009, Shanghai, China*, (pp. 1251-1254) Piscataway, NJ: IEEE Computer Society.  
<http://doi.ieeecomputersociety.org/10.1109/ICDE.2009.213> (Published)

An incremental threshold method for continuous text search queries, by MOURATIDIS, Kyriakos; PANG, Hwee Hwa. (2009.0). *ICDE 2009: 25th IEEE International Conference on Data Engineering: Proceedings, Shanghai, China, 29 March-2 April*, (pp. 1187-1190) Los Alamitos, CA: IEEE Computer Society.  
<https://doi.ieeecomputersociety.org/10.1109/ICDE.2009.197> (Published)

Authenticating the query results of text search engines, by PANG, Hwee Hwa; MOURATIDIS, Kyriakos.

(2008.0). *Proceedings of the VLDB Endowment: VLDB 2008, Auckland, New Zealand, August 24-30*, (pp. 126-137) New York: VLDB Endowment. <https://doi.org/10.14778/1453856.1453875> (Published)

Capacity Constrained Assignment in Spatial Databases, by LEONG, Hou U; YIU, Man Lung; MOURATIDIS, Kyriakos; MAMOULIS, Nikos. (2008.0). *SIGMOD '08: Proceedings of the 2008 ACM SIGMOD International Conference on Management of Data: June 9-12, 2008, Vancouver, Canada*, (pp. 15-28) New York: ACM. <http://dx.doi.org/10.1145/1376616.1376621> (Published)

On-Line Discovery of Hot Motion Paths, by SACHARIDIS, Dimitris; PATROUMPAS, Kostas; TERROVITIS, Manolis; KANTERE, Verena; POTAMIAS, Michalis; MOURATIDIS, Kyriakos; SELLIS, Timos. (2008.0). *Advances in Database Technology EDBT 2008: 11th International Conference on Extending Database Technology, Nantes, France, March 25 - 29, 2008: Proceedings*, (pp. 392-403) New York: ACM. <http://dx.doi.org/10.1145/1353343.1353392> (Published)

Continuous Medoid Queries over Moving Objects, by PAPADOPOULOS, Stavros; SACHARIDIS, Dimitris; MOURATIDIS, Kyriakos. (2007.0). *Advances in Spatial and Temporal Databases: 10th International Symposium, SSTD 2007, Boston, MA, USA, July 16.-18, 2007, Proceedings*, (pp. 38-56) Berlin: Springer Verlag. [http://dx.doi.org/10.1007/978-3-540-73540-3\\_3](http://dx.doi.org/10.1007/978-3-540-73540-3_3) (Published)

Continuous Nearest Neighbor Monitoring in Road Networks, by MOURATIDIS, Kyriakos; YIU, Man Lung; PAPADIAS, Dimitris; MAMOULIS, Nikos. (2006.0). *VLDB 2006: Proceedings of the 32nd International Conference on Very Large Data Bases: September 12-15, 2006, COEX, Seoul, Korea*, (pp. 43-54) New York: VLDB Endowment. <http://www.vldb.org/conf/2006/p43-mouratidis.pdf> (Published)

Continuous Monitoring of Top-K Queries over Sliding Windows, by MOURATIDIS, Kyriakos; BAKIRAS, Spiridon; PAPADIAS, Dimitris. (2006.0). *SIGMOD 2006: Proceedings of the 2006 ACM SIGMOD International Conference on Management of Data: Chicago, Illinois, USA, June 26-29, 2006*, (pp. 635-646) New York: ACM. <http://dx.doi.org/10.1145/1142473.1142544> (Published)

Medoid queries in large spatial databases, by MOURATIDIS, Kyriakos; PAPADIAS, Dimitris; PAPADIMITRIOU, Spiros. (2005.0). *Advances in Spatial and Temporal Databases: 9th International Symposium, SSTD 2005, Angra dos Reis, Brazil, August 22-24, 2005: Proceedings*, (pp. 55-72) Berlin: Springer Verlag. [http://dx.doi.org/10.1007/11535331\\_4](http://dx.doi.org/10.1007/11535331_4) (Published)

Constrained shortest path computation, by TERROVITIS, Manolis; BAKIRAS, Spiridon; PAPADIAS, Dimitris; MOURATIDIS, Kyriakos. (2005.0). *Advances in Spatial and Temporal Databases: 9th International Symposium, SSTD 2005, Angra dos Reis, Brazil, August 22-24, 2005. Proceedings*, (pp. 181-199) Berlin: Springer Verlag. [http://dx.doi.org/10.1007/11535331\\_11](http://dx.doi.org/10.1007/11535331_11) (Published)

Conceptual Partitioning: An Efficient Method for Continuous Nearest Neighbor Monitoring, by MOURATIDIS, Kyriakos; HADJIELEFTHERIOU, Marios; PAPADIAS, Dimitris. (2005.0). *SIGMOD '05: Proceedings of the 2005 ACM SIGMOD International Conference on Management of Data, June 14-16, Baltimore, Maryland*, (pp. 634-645) New York: ACM. <http://dx.doi.org/10.1145/1066157.1066230> (Published)

Group nearest neighbor queries, by PAPADIAS, Dimitris; SHEN, Qiongmao; TAO, Yufei; MOURATIDIS, Kyriakos. (2004.0). *ICDE 2004: 20th IEEE International Conference on Data Engineering: Proceedings: 30 March-2 April, Boston*, (pp. 301-312) Los Alamitos, CA: IEEE Computer Society. <https://doi.ieeecomputersociety.org/10.1109/ICDE.2004.1320006> (Published)

Spatial queries in the presence of obstacles, by ZHANG, Jun; PAPADIAS, Dimitris; MOURATIDIS, Kyriakos; ZHU, Manli. (2004.0). *Advances in database technology EDBT 2004: 9th International Conference on Extending Database Technology: Herakleion, Crete, Greece, March 14-18, 2004: Proceedings*, (pp. 366-384) Berlin: Springer Verlag. [http://dx.doi.org/10.1007/978-3-540-24741-8\\_22](http://dx.doi.org/10.1007/978-3-540-24741-8_22) (Published)

## Research Grants

### Singapore Management University

PERFLEXO: a PERSONalized, FLEXible, and controlled Output-size framework for multi-objective preference queries in large databases, Academic Research Fund (AcRF) Tier 2, Ministry of Education (MOE) , PI (Project Level): Kyriakos MOURATIDIS, 2021, S\$596,687

Determining Impact Regions in Preference Space, SMU Internal Grant, Ministry of Education (MOE) Tier 1 ,

PI (Project Level): Kyriakos MOURATIDIS, 2017, S\$31,634.27

Joint Search by Social and Spatial Proximity, SMU Internal Grant, Ministry of Education (MOE) Tier 1 , PI (Project Level): Kyriakos MOURATIDIS, 2014, S\$21,593.78

## TEACHING

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### Courses Taught

#### Singapore Management University

Undergraduate Programmes :

Data Management

Postgraduate Professional Programmes :

Data Management

Postgraduate Research Programmes :

Empirical Research Project 1

Empirical Research Project 2

Empirical Research Project 3

## THESES AND DISSERTATIONS

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### Theses and Dissertations Supervised

#### Singapore Management University

Supervisor, "Finding top-m leading records in temporal data", Dissertation by WANG YIYI, Master of Philosophy in Information Systems, Singapore Management University, 2022

Supervisor, "Multi-cost and Upgradable Spatial Network Databases", Dissertation by LIN YIMIN, PhD in Information Systems, Singapore Management University, 2014

Supervisor, "Recommendation Support for Multi-attribute Databases", Dissertation by ZHANG JILIAN, PhD in Information Systems, Singapore Management University, 2014

## UNIVERSITY SERVICE

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### Singapore Management University

Committee Member, Executive Committee (EXCO) of Faculty Senate, Apr 2025 - Present

University Senate Service, Faculty Senate, Apr 2025 - Present

Committee Member, Executive Committee (EXCO) of Faculty Senate, Apr 2018 - Mar 2021

University Senate Service, Faculty Senate, Apr 2017 - Mar 2021

Committee Member, Faculty Advisory Committee (Teaching and Learning), Dec 2011 - Jun 2014

## EXTERNAL SERVICE – PROFESSIONAL

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Committee Chair, Tutorials Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2025

Committee Member, Research Track, Very Large Data Bases Conference (VLDB), 2025

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2025

Committee Member, Research Track, ACM Conference on Management of Data (SIGMOD), 2025

Editor Associate Editor, GeoInformatica, 2024 - Present

Vice PC-Chair, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2024

Associate Editor, Research Track, ACM Conference on Management of Data (SIGMOD), 2024

Committee Member, Data and Resources Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2023

Member, Best Paper Award Committee, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2023

Committee Member, Vision Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2023

Committee Member, Research Track, Very Large Data Bases Conference (VLDB), 2023

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2023

Chairperson, Workshops, International Conference on Mobile Data Management (MDM), 2023

Senior PC Member (meta-reviewer), Research Track, ACM Conference on Information and Knowledge Management (CIKM), 2022

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2022

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2021

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2021

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2020

Chairperson, SRC@SIGSPATIAL'19, Student Research Competition at ACM SIGSPATIAL 2019, 2019

Editor Associate Editor, SIGMOD Record, 2019 - Present

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2019

Committee Member, Demonstrations Track, ACM Conference on Management of Data (SIGMOD), 2019

Committee Member, Research Track, International Conference on Mobile Data Management (MDM), 2019

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2019

Chairperson, SRC@SIGSPATIAL'18, Student Research Competition at ACM SIGSPATIAL 2018, 2018

Member, Best Demonstration Award Committee, Very Large Data Bases Conference (VLDB), 2018

Committee Member, Demonstrations Track, Very Large Data Bases Conference (VLDB), 2018

Committee Member, Research Track, Hellenic Data Management Symposium (HDMS), 2018

Committee Member, Demonstrations Track, ACM Conference on Management of Data (SIGMOD), 2018

Committee Member, Research Track, International Conference on Database Systems for Advanced Applications (DASFAA), 2018

Committee Member, Research Track, International Conference on Extending Database Technology (EDBT), 2018

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2017

Member, Best Demonstration Award Committee, Very Large Data Bases Conference (VLDB), 2017

Committee Member, Demonstrations Track, Very Large Data Bases Conference (VLDB), 2017

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2017

Field Editor on Spatial Optimization, Encyclopedia of GIS, Springer, 2017 - Present

Editor Associate Editor, Distributed and Parallel Databases Journal (DAPD), 2017 - Present

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2017

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2016

Member, Best Paper Award Committee, ACM Conference on Management of Data (SIGMOD), 2016

Group Leader, Research Track, ACM Conference on Management of Data (SIGMOD), 2016

Committee Member, Research Track, International Conference on Mobile Data Management (MDM), 2016

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2015

Committee Member, Research Track, International Workshop on Mobile Geographic Information Systems (MobiGIS), 2015

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2015

Executive Committee Member, GeoRich Steering Committee, International ACM Workshop on Managing and Mining Semantically Rich Geo-Spatial Data (GeoRich), 2015 - Present

Conference Chair, GeoRich'15, International ACM Workshop on Managing and Mining Semantically Rich Geo-Spatial Data (GeoRich), 2015

Senior PC Member (meta-reviewer), Research Track, International Conference on Database Systems for Advanced Applications (DASFAA), 2015

Committee Member, Research Track, International Workshop on Mobile Geographic Information Systems (MobiGIS), 2014

Committee Member, Research Track, Hellenic Data Management Symposium (HDMS), 2014

Chairperson, Program Committee, International ACM Workshop on Managing and Mining Semantically Rich Geo-Spatial Data (GeoRich), 2014

Committee Member, Research Track, International Workshop on Mobile Geographic Information Systems (MobiGIS), 2013

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2013

Committee Member, Research Track, International Conference on Big Data (IEEE BigData), 2013

Committee Member, Research Track, Very Large Data Bases Conference (VLDB), 2013

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2013

Chairperson, Program Committee, International ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDE), 2013

Committee Member, Research Track, ACM Conference on Management of Data (SIGMOD), 2013

Committee Member, Research Track, International Conference on Mobile Data Management (MDM), 2013

Committee Member, Demonstrations Track, International Conference on Mobile Data Management (MDM), 2013

Committee Member, Demonstrations Track, International Conference on Data Engineering (ICDE), 2013

Committee Member, Research Track, International Workshop on Mobile Geographic Information Systems (MobiGIS), 2012

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2012

Committee Member, Research Track, Very Large Data Bases Conference (VLDB), 2012

Committee Member, Research Track, International Conference on Mobile Data Management (MDM), 2012

Committee Member, Research Track, Hellenic Data Management Symposium (HDMS), 2012

Committee Member, Research Track, International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL), 2011

Chairperson, Demonstrations Track, International Symposium on Spatial and Temporal Databases (SSTD), 2011

Chairperson, Vision and Challenge Track, International Symposium on Spatial and Temporal Databases (SSTD), 2011

Committee Member, Research Track, International Conference on Scientific and Statistical Database Management (SSDBM), 2011

Committee Member, Research Track, Hellenic Data Management Symposium (HDMS), 2011

Committee Member, Research Track, APSIPA Annual Summit and Conference (APSIPA ASC), 2010

Committee Member, Research Track, ACM Conference on Information and Knowledge Management (CIKM), 2010

Committee Member, Research Track, Hellenic Data Management Symposium (HDMS), 2010

Committee Member, Research Track, ACM Conference on Management of Data (SIGMOD), 2010

Committee Member, PhD Workshop, International Conference on Data Engineering (ICDE), 2010

Committee Member, Research Track, Workshop on Semantic and Conceptual Issues in Geographic Information Systems (SeCoGIS), 2009

Committee Member, Demonstrations Track, ACM Conference on Information and Knowledge Management (CIKM), 2009

Committee Member, Research Track, International Conference on Database and Expert Systems Applications (DEXA), 2009

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2009

Committee Member, PhD Workshop on Innovative Database Research, ACM Conference on Management of Data (SIGMOD), 2009

Committee Member, Demonstrations Track, International Conference on Data Engineering (ICDE), 2009

Committee Member, Research Track, International Conference on Scientific and Statistical Database Management (SSDBM), 2008

Committee Member, Research Track, International Conference on Data Engineering (ICDE), 2008

Committee Member, Research Track, International Symposium on Spatial and Temporal Databases (SSTD), 2007