

# Ioannis (Yannis) Kotidis

Professor  
Department of Informatics  
Athens University of Economics and Business  
76 Patission St, GR 10434, Athens, Greece

Work: +30-210-8203193  
Email: [kotidis@aueb.gr](mailto:kotidis@aueb.gr)  
<http://www.cs.aueb.gr/people/profiles/kotidis.shtml>

## Research Interest

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- Large-scale data analytics, graph data management, data warehouses, data integration, data mining, data streams, sensor networks.

## Education

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**Ph.D. University of Maryland, USA** **May 2000**  
**Department of Computer Science**

- Dissertation Title: *View Management in Data Warehouses*.
- Advisor: Prof. Nick Roussopoulos

**M.Sc. University of Maryland, USA** **May 1997**  
**Department of Computer Science**

- Advisor: Prof. Nick Roussopoulos

**Eng. Diploma in Electrical & Computer Engineering** **May 1995**  
**National Technical University of Athens**

- GPA: 9.06/10
- Thesis title: A Graphical User Interface for Spatial Databases Using INGRES-Windows4GL.
- Advisor: Prof. Timos Sellis

## Honors and Awards

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**Bodosakis Foundation** **1995-1997**

- Scholarship from Bodosakis Foundation.

**Association for Computing Machinery-SIGMOD Group** **June 1999**

- Best paper award for "*DynaMat: A Dynamic View Management System for Data Warehouses*", *ACM SIGMOD International Conference on Management of Data*, Philadelphia, PA, June 1999.

**AT&T Labs-Research** **Feb 2002**

- Research Excellence Award for work in large scale system integration.

**AT&T** **Dec 2003**

- Software Excellence Award, for the design and implementation of the Virtual Integration Prototype (VIP). VIP is a search engine over AT&T's Legacy Databases. In year 2003, VIP served 24 Million queries from more than 6,000 users.

**IEEE Int. Conference on Data Engineering****March 2009**

- Best student paper award for “*Double Index Nested-loop Reactive Join for Result Rate Optimization*”, *IEEE International Conference on Data Engineering (ICDE)*, Shanghai, China, March 2009.

**Research/Work Experience**

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**Associate Professor, Athens University of Economics and Business** **2006-**  
**Department of Informatics**

- Performed research in areas related to management and analysis of massive datasets such as those related to data warehousing, data streams, sensor networks and graph databases.

**Senior Technical Specialist, AT&T Labs-Research, USA** **2000-2006**  
**AT&T Shannon Laboratory, Database Research Department**

- Performed research in areas related to big data management and analysis.

**Graduate Research Assistant, University of Maryland, USA** **1996-2000**

- Performed research related to data cubes, view management, data warehousing and data mining.

**Summer Intern, Advance Communication Technologies, USA** **1997-1998**

- Designed and implemented a set of software libraries for defining, querying and updating data cube aggregate views using Cubetrees.

**Research Scientist, National Technical University of Athens** **1990-1992**

- Worked with the software development group involved in propagation modeling for land mobile communications systems. The project was funded by the European-Community research program RACE and the Greek National Telecommunication Agency.

**Teaching Experience**

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**Athens University of Economics and Business** **2006-**

- Undergraduate Courses: “Software Project Management”, “Analysis and Applications of Information Systems”, “Advanced Databases”, Department of Informatics.
- Graduate course in “Data Mining”, Postgraduate Program in Data Science.
- Graduate course in “Mining Big Datasets”, Postgraduate Program in Business Analytics.
- Graduate course in “Database Theory”, Postgraduate Program of studies in Computer Science.
- Graduate course in “Large-Scale Data Management Systems”, Postgraduate Program in Information Systems.

**Rutgers University, New Jersey USA** **2001-2002**  
**Center for Discrete Mathematics & Theoretical Computer Science**

- Organized seminar in *Data Analysis and Data Mining*.

**Graduate Teaching Assistant, University of Maryland, USA****1995-1996**

- Assisted and evaluated course projects for an introductory course in UNIX and MS-Windows (Department Of Computer Science, CMSC105).
- Designed course projects and conducted discussion sessions for an introductory course in Pascal (Department Of Computer Science, CMSC103).

**Publications****<http://pages.cs.aueb.gr/kotidis/Publications/index.html>****Refereed Journal Publications**

1. E. Kharlamov, Y. Kotidis, T. Mailis, C. Neuenstadt, C. Nikolaou, O. Ozcep, C. Svingos, D. Zheleznyakov, Y. Ioannidis, S. Lamparter, R. Moller. An Ontology-mediated Analytics-aware Approach to Support Monitoring and Diagnostics of Static and Streaming Data. *Journal of Web Semantics*, to appear.
2. D. Bleco, Y. Kotidis. Using Entropy Metrics for Pruning Very Large Graph Cubes. *Information Systems*, Volume 81, pages 49-62, March 2019.
3. N. Giatrakos, A. Deligiannakis, M. Garofalakis, Y. Kotidis: Omnibus Outlier Detection in Sensor Networks using Windowed Locality Sensitive Hashing. *Future Generation Computer Systems*, to appear.
4. V. Spyropoulos, Y. Kotidis. Digree: Building A Distributed Graph Processing Engine out of Single-node Graph Database Installations. *Sigmod Record*, December 2017.
5. E. Kharlamov, D. Bilidas, D. Hovland, E. Jimenez-Ruiz, D. Lanti, H. Lie, M. Rezk, M. G. Skaveland, A. Soyly, G. Xiao, D. Zheleznyakov, M. Giese, Y. Ioannidis, Y. Kotidis, M. Koubarakis, A. Waaler. Ontology Based Data Access in Statoil. *Journal of Web Semantics*, Volume 44, pages 3-36, 2017.
6. E. Kharlamov, T. Mailis, G. Mehdi, C. Neuenstadt, O Ozcep, M. Roshchin, N. Solomakhina, A. Soyly, C. Svingos, S. Brandt, M. Giese, Y. Ioannidis, S. Lamparter, R. Moller, Y. Kotidis, A. Waaler. Semantic Access to Streaming and Static Data at Siemens. *Journal of Web Semantics*, to appear.
7. K. Georgoulas, A. Vlachou, C. Doulkeridis, Y. Kotidis. User-Centric Similarity Search. *IEEE Transactions on Knowledge and Data Engineering*, Volume 29(1), pages 200-2013, January 2017.
8. N. Giatrakos, Y. Kotidis, A. Deligiannakis, V. Vassalos, Y. Theodoridis. In-Network Approximate Computation of Outliers with Quality Guarantess. *Information Systems*, Volume 38(8), pages 1285-1308, November 2013.
9. K. Georgoulas, Y. Kotidis. Distributed Similarity Estimation using Derived Dimensions. *The VLDB Journal*, Volume 21(1), pages 25-50, February 2012.
10. A. Vlachou, C. Doulkeridis, Y. Kotidis. Metric-Based Similarity Search in Unstructured Peer-to-Peer Systems. *Transactions on Large-Scale Data and Knowledge-Centered Systems*, Volume (5), pages 28-48, 2012.
11. A. Deligiannakis, Y. Kotidis. Detecting Proximity Events in Sensor Networks. *Information Systems*, Volume 36(7), pages 1044-1063, November 2011.
12. A. Vlachou, C. Doulkeridis, Y. Kotidis, K. Norvag. Monochromatic and Bichromatic Reverse Top-k Queries. *IEEE Transactions on Knowledge and Data Engineering*, Volume 23(8), pages 1215-1229, August 2011.
13. A. Deligiannakis, Y. Kotidis, V. Stoumpos, A. Delis. Collection Trees for Event-Monitoring Queries. *Information Systems*, Volume 36(2), pages 386-405, April 2011.
14. C. Doulkeridis, A. Vlachou, Y. Kotidis, M. Vazirgiannis. Efficient Routing of Subspace Skyline Queries over Highly Distributed Data. *IEEE Transactions on Knowledge and Data Engineering*, Volume 22(12), pages 1694-1708, December 2010.
15. C. Doulkeridis, A. Vlachou, K. Norvag, Y. Kotidis, M. Vazirgiannis. Efficient Search based on Content Similarity over Self-Organizing P2P Networks. *Peer-to-Peer Networking and Applications*, Volume 3(1), pages 67-79, March 2010.

16. M. Bornea, V. Vassalos, Y. Kotidis, A. Deligiannakis. Adaptive Join Operators for Result Rate Optimization on Streaming Inputs. *IEEE Transactions on Knowledge and Data Engineering*, Volume 22(8), pages 1110-1125, August 2010.
17. C. Doulkeridis, A. Vlachou, Y. Kotidis, M. Vazirgiannis. Efficient Range Query Processing in Metric Spaces over Highly Distributed Data. *Distributed and Parallel Databases*, Volume 26(2+3), pages 155-180, December 2009.
18. P. Constantopoulos, C. Dallas, I. Androutsopoulos, S. Angelis, A. Deligiannakis, D. Gavrilis, Y. Kotidis, C. Papatheodorou. DCC&U: An Extended Digital Curation Lifecycle Model. *International Journal of Digital Curation*, Volume 4(1), pages 34-45, June 2009.
19. A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Bandwidth-Constrained Queries in Sensor Networks. *The VLDB Journal*, Volume 17(3), pages 443-467, May 2008.
20. A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Dissemination of Compressed Historical Information in Sensor Networks. *VLDB Journal*, Volume 16(4), October 2007.
21. Y. Kotidis. Extending the Data Warehouse for Service Provisioning Data. *Data & Knowledge Engineering*, Volume 59(3), pages 700-735, December 2006.
22. A. Gilbert, Y. Kotidis, S. Muthukrishnan, M. Strauss. Domain-Driven Data Synopses for Dynamic Quantiles. *IEEE Transactions on Knowledge and Data Engineering*, Volume 17 (7), July 2005.
23. A. Deligiannakis, Y. Kotidis. Data Reduction Techniques in Sensor Networks. *IEEE Data Engineering Bulletin*, Volume 28(1), March 2005.
24. A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Processing Approximate Aggregate Queries in Wireless Sensor Networks. *Information Systems*, Volume 31(8), pages 770-792, December 2006.
25. A. Gilbert, Y. Kotidis, S. Muthukrishnan, M. Strauss. One-pass Wavelet Decompositions of Data Streams. *IEEE Transactions on Knowledge and Data Engineering*, Volume 15 (3), May/June 2003.
26. Y. Kotidis, N. Roussopoulos. A Case for Dynamic View Management. *ACM Transactions on Database Systems (TODS)*, Volume 26(4), 2001.
27. F. Korn, A. Labrinidis, Y. Kotidis, C. Faloutsos. Quantifiable Data Mining Using Ratio Rules. *The VLDB Journal*, Volume 8(3+4), February 2000.

### **Book Chapters and Encyclopedias**

28. A. Vlachou, C. Doulkeridis, K. Norvag, Y. Kotidis. Peer-to-Peer Query Processing over Multimedia Data. *SpringerBriefs in Computer Science*, ISBN 978-1-4614-2109-2, 2012.
29. Y. Kotidis. Aggregate View Management in Data Warehouses. *Handbook of Massive Data Sets*. Kluwer Academic Publishers, pages 711-742, ISBN 1-4020-0489-3.
30. A. Deligiannakis, Y. Kotidis. Exploiting Spatio-Temporal Correlations for Data Processing in Sensor Networks. *Advances in Geosensor Networks*, pages 45-65, ISBN 978-3-540-79996-6.
31. Y. Kotidis, N. Roussopoulos. DynaMat. A Dynamic View Management System for Data Warehouses. *Readings In Database Systems*. Joseph M. Hellerstein, Michael Stonebraker editors. MIT Press, ISBN 0262693143, 2005.
32. Y. Kotidis. Views, *Encyclopedia of Database Systems*, Definitional Entry, Springer, in press.
33. Y. Kotidis. View Definition, *Encyclopedia of Database Systems*, Definitional Entry, Springer, in press.

### **Refereed Conference and Workshop Publications**

34. T. Mailis, Y. Kotidis, V. Nikolopoulos, E. Kharlamov, Y. Ioannidis, I. Horrocks. An Efficient Index for RDF Query Containment. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, Amsterdam, NL, June-July 2019.
35. D. Bleco, Y. Kotidis. Finding the Needle in a Haystack: Entropy Guided Exploration of Very Large Graph Cubes. In *Proceedings of the International Workshop on Big Data Visual Exploration and Analytics (BigVis)*, Vienna, Austria, March 2018.
36. D. Bleco, Y. Kotidis. Entropy-based selection of Graph Cuboids. In *Proceedings of the 5th International Workshop on Graph Data Management Experiences and Systems (GRADES)*, Chicago, Illinois, May, 2017.

37. E. Kharlamov, T. Mailis, K. Mpereta, D. Bilidas, S. Brandt, E. Jimenez-Ruiz, S. Lamparter, C. Neuenstadt, O. Ozcep, A. Soylu, C. Svingos, G. Xiao, D. Zheleznyakov, D. Calvanese, I. Horrocks, M. Giese, Y. Ioannidis, Y. Kotidis, R. Moeller, A. Waaler. A Semantic Approach to Polystores. In *Proceedings of the IEEE Big Data Workshop on Methods to Manage Heterogeneous Data and Polystore Systems*, Washington D.C., Dec 2016.
38. V. Spyropoulos, C. Vasilakopoulou, Y. Kotidis. A Middleware for a Graph Databases Polystore. In *Proceedings of the IEEE Big Data Workshop on Methods to Manage Heterogeneous Data and Polystore Systems*, Washington D.C., Dec 2016.
39. I. Filippidou, Y. Kotidis. Effective and Efficient Graph Augmentation in Large Graphs. In *Proceedings of the 2016 IEEE International Conference on Big Data (IEEE BigData 2016)*, Washington D.C., Dec 2016.
40. C. Svingos, T. Mailis, H. Kllapi, L. Stamatogiannakis, Y. Kotidis, Y. Ioannidis. Real Time Processing of Streaming and Static Information. In *Proceedings of the 2016 IEEE International Conference on Big Data (IEEE BigData 2016)*, Washington D.C., Dec 2016.
41. E. Kharlamov, Y. Kotidis, T. Mailis, C. Neuenstadt, C. Nikolaou, O. Ozcep, C. Svingos, D. Zheleznyakov, S. Brandt, I. Horrocks, S. Lamparter, Y. Ioannidis, R. Moeller. Towards Analytics Aware Ontology Based Access to Static and Streaming Data. In *Proceedings of the 15th International Semantic Web Conference (ISWC)*, Kobe, Japan, October 2016.
42. E. Kharlamov, S. Brandt, M. Giese, E. Jimenez-Ruiz, Y. Kotidis, S. Lamparter, T. Mailis, C. Neuenstadt, O. Ozcep, C. Pinkel, A. Soylu, C. Svingos, D. Zheleznyakov, I. Horrocks, Y. Ioannidis, R. Moller, A. Waaler. Scalable Semantic Access to Siemens Static and Streaming Distributed Data. In *Proceedings of the 15th International Semantic Web Conference (demos)*, Kobe, Japan, October 2016.
43. K. Georgoulas, Y. Kotidis. Hierarchically Clustered LSH for Hierarchical Outliers Detection. In *Proceedings of the 27th International Conference on Database and Expert Systems Applications (DEXA)*, Porto, Portugal, September 2016.
44. E. Kharlamov, S. Brandt, M. Giese, E. Jimenez-Ruiz, Y. Kotidis, S. Lamparter, T. Mailis, C. Neuenstadt, O. Ozcep, C. Pinkel, A. Soylu, C. Svingos, D. Zheleznyakov, I. Horrocks, Y. Ioannidis, R. Moeller, A. Waaler. Optique: Enabling Semantic Access to Static and Streaming Distributed Data. In *Proceedings of the 10th ACM International Conference on Distributed and Event-Based Systems (demos)*, Irvine, CA, June 2016.
45. E. Kharlamov, S. Brandt, E. Jimenez-Ruiz, Y. Kotidis, S. Lamparter, T. Mailis, C. Neuenstadt, O. Ozcep, C. Pinkel, C. Svingos, D. Zheleznyakov, I. Horrocks, Y. Ioannidis, R. Moeller. Ontology-Based Integration of Streaming and Static Relational Data with Optique. In *Proc. of ACM SIGMOD Int. Conference on Management of Data (demos)*, San Francisco, CA, June 2016.
46. Y. Filippidou, Y. Kotidis. Online and On-demand Partitioning of Streaming Graphs. In *Proceedings of the IEEE International Conference on Big Data (IEEE BigData 2015)*, Santa Clara, CA, Oct-Nov, 2015.
47. V. Spyropoulos, Y. Kotidis. Building Space-Efficient Inverted Indexes on Low-Cardinality Dimensions. In *Proceedings of the 26th International Conference on Database and Expert Systems Applications (DEXA)*, Valencia, Spain, September 2015.
48. Y. Filippidou, Y. Kotidis. Online Partitioning of Multi-Labeled Graphs. In *Proceedings of the 3rd International Workshop on Graph Data Management Experiences and Systems (GRADES)*, Melbourne, Australia, May, 2015.
49. D. Bleco, Y. Kotidis. Graph Analytics on Massive Collections of Small Graphs. In *Proceedings of the 17th International Conference on Extending Database Technology (EDBT)*, Athens, Greece, March, 2014.
50. V. Spyropoylos, Y. Kotidis. Dynamic Partitioning of Big Hierarchical Graphs. In *Proceedings of the First International Workshop on Big Dynamic Distributed Data*, Trento, Italy, August 2013.
51. A. Vlachou, C. Doulkeridis, K. Norvag, Y. Kotidis. Branch-and-Bound Algorithm for Reverse Top-k Queries. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, New York, USA, June 2013.
52. K. Georgoulas, Y. Kotidis. Towards Enabling Outlier Detection in Large, High Dimensional Data Warehouses. In *Proceedings of the 24th International Conference on Scientific and Statistical Database Management (SSDBM) (poster paper)*, Chania, Greece, June 2012.

53. D. Bleco, Y. Kotidis. A Framework for Enabling Query Rewrites when Analyzing Workflow Records. In *Proceedings of the 24<sup>th</sup> International Conference on Scientific and Statistical Database Management (SSDBM) (poster paper)*, Chania, Greece, June 2012.
54. D. Bleco, Y. Kotidis. Business Intelligence on Complex Graph Data. In *Proceedings of the 3<sup>rd</sup> International Workshop on Business Intelligence and the WEB (BEWEB)*, Berlin, Germany, March 2012.
55. C. Doulkeridis, A. Vlachou, K. Norvag, Y. Kotidis, N. Polyzotis. Processing of Rank Joins in Highly Distributed Systems. In *Proceedings of the 28<sup>th</sup> IEEE International Conference on Data Engineering (ICDE)*, Washington, DC, April 2012.
56. V. Dritsou, P. Constantopoulos, A. Deligiannakis, Y. Kotidis. Optimizing Query Shortcuts in RDF Databases. In *Proceedings of the 8<sup>th</sup> Extended Semantic Web Conference (ESWC)*, Heraklion, Greece, May-June 2011.
57. M. Bornea, A. Deligiannakis, Y. Kotidis, V. Vassalos. Semi-Streamed Index Join for Near-Real Time Execution of ETL Transformations. In *Proceedings of the 27<sup>th</sup> International Conference on Data Engineering (ICDE)*, Hannover, Germany, April 2011.
58. V. Dritsou, P. Constantopoulos, A. Deligiannakis, Y. Kotidis. Shortcut Selection in RDF Databases. In *Proceedings of the 2<sup>nd</sup> International Workshop on Data Engineering meets the Semantic Web (DESWeb)*, Hannover, Germany, April 2011.
59. C. Doulkeridis, A. Vlachou, K. Norvag, Y. Kotidis, M. Vazirgiannis. On the Selectivity of Multidimensional Routing Indices. In *Proceedings of the 19<sup>th</sup> ACM Conference on Information and Knowledge Management (CIKM)*, Toronto, Canada, October 2010.
60. N. Giatrakos, Y. Kotidis, A. Deligiannakis. PAO: Power-Efficient Attribution of Outliers in Wireless Sensor Networks. In *Proceedings of the 7<sup>th</sup> VLDB Workshop on Data Management for Sensor Networks (DMSN)*, Singapore, September 2010.
61. A. Vlachou, C. Doulkeridis, K. Norvag, Y. Kotidis. Identifying the Most Influential Data Objects with Reverse Top-k Queries. In *Proceedings of the 36<sup>th</sup> International Conference on Very Large Data Bases (VLDB)*, Singapore, September 2010.
62. K. Georgoulas, Y. Kotidis. Random Hyperplane Projection using Derived Dimensions. In *Proceedings of the 9<sup>th</sup> International ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDE)*, Indianapolis, USA, June 2010.
63. N. Giatrakos, Y. Kotidis, A. Deligiannakis, V. Vassalos, Y. Theodoridis. TACO: Tunable Approximate Computation of Outliers in wireless sensor networks. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, Indianapolis, USA, June 2010.
64. A. Vlachou, C. Doulkeridis, Y. Kotidis, K. Norvag. Reverse Top-k Queries. In *Proceedings of the 26<sup>th</sup> International Conference on Data Engineering (ICDE)*, Los Angeles, USA, March 2010.
65. A. Vlachou, C. Doulkeridis, Y. Kotidis. Peer-to-Peer Similarity Search based on M-Tree Indexing. In *Proceedings of Database Systems for Advanced Applications (DASFAA) (short paper)*, Tsukuba, Japan, April 2010.
66. C. Doulkeridis, A. Vlachou, K. Norvag, Y. Kotidis, M. Vazirgiannis. Multidimensional Routing Indices for Efficient Distributed Query Processing. In *Proc. of the 18<sup>th</sup> ACM Conference on Information and Knowledge Management (CIKM) (short paper)*, Hong Kong, China, Nov 2009.
67. D. Bleco, Y. Kotidis. RFID Data Aggregation. In *Proceedings of the 3<sup>rd</sup> International Conference on Geosensor Networks (GSN)*, Oxford, UK, July 2009.
68. A. Deligiannakis, Y. Kotidis, V. Stoumpos, A. Delis. Building Efficient Aggregation Trees for Sensor Networks' Event-Monitoring Queries. In *Proceedings of the 3<sup>rd</sup> International Conference on Geosensor Networks (GSN)*, Oxford, UK, July 2009.
69. A. Deligiannakis, Y. Kotidis, V. Vassalos, V. Stoumpos, A. Delis. Another Outlier Bites the Dust: Computing Meaningful Aggregates in Sensor Networks. In *Proceedings of the 25<sup>th</sup> International Conference on Data Engineering (ICDE)*, Shanghai, China, March 2009.
70. M. Bornea, V. Vassalos, Y. Kotidis, A. Deligiannakis. Double Index Nested-loop Reactive Join for Result Rate Optimization. In *Proceedings of the 25<sup>th</sup> International Conference on Data Engineering (ICDE) (best student paper award)*, Shanghai, China, March 2009.
71. P. Constantopoulos, C. Dallas, I. Androutsopoulos, S. Angelis, A. Deligiannakis, D. Gavriliis, Y. Kotidis, C. Papatheodorou. DCC&U: An Extended Digital Curation Lifecycle Model. In *Proceedings of the 4<sup>th</sup> International Digital Curation Conference*, Edinburgh, Scotland, December 2008.

72. A. Vlachou, C. Doulkeridis, Y. Kotidis. Angle-based Space Partitioning for Efficient Parallel Skyline Computation. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, Vancouver, Canada, June 2008.
73. A. Deligiannakis, V. Stoumpos, Y. Kotidis, V. Vassalos, A. Delis. Outlier-Aware Data Aggregation in Sensor Networks. In *Proceedings of the 24<sup>th</sup> International Conference on Data Engineering (ICDE) (poster paper)*, Cancun, Mexico, April 2008.
74. V. Stoumpos, A. Deligiannakis, Y. Kotidis, A. Delis. Processing Event-Monitoring Queries in Sensor Networks. In *Proceedings of the 24<sup>th</sup> International Conference on Data Engineering (ICDE) (poster paper)*, Cancun, Mexico, April 2008.
75. A. Vlachou, C. Doulkeridis, Y. Kotidis, M. Vazirgiannis. Peer-to-Peer Similarity Search in Metric Spaces. In *Proceedings of the 33<sup>rd</sup> Very Large Data Bases (VLDB) Conference*, Vienna, Austria, September 2007.
76. A. Vlachou, C. Doulkeridis, Y. Kotidis, M. Vazirgiannis. SKYPEER: Efficient Subspace Skyline Computation over Distributed Data. In *Proceedings of the 23<sup>rd</sup> International Conference on Data Engineering (ICDE)*, Istanbul, Turkey, April 2007.
77. Y. Kotidis, A. Deligiannakis, V. Stoumpos, V. Vassalos, A. Delis. Robust Management of Outliers in Sensor Network Aggregate Queries. In *Proceedings of MobiDE*, Beijing, China, June 2007.
78. Y. Kotidis, D. Srivastava, Y. Velegrakis. Updates Through Views: A New Hope. In *Proceedings of the 22<sup>nd</sup> International Conference on Data Engineering (ICDE)*, Atlanta, Georgia, April 2006.
79. Y. Kotidis, A. Marian, D. Srivastava. Circumventing Data Quality Problems Using Multiple Join Paths. In *Proceedings of the First International VLDB Workshop on Clean Databases (CleanDB 2006)*, Seoul, South Korea, September 2006.
80. Y. Kotidis. Processing Proximity Queries in Sensor Networks. In *Proceedings of the 3<sup>rd</sup> International VLDB Workshop on Data Management for Sensor Networks (DMSN 2006)*, Seoul, South Korea, September 2006.
81. Y. Kotidis. Snapshot Queries: Towards Data-Centric Sensor Networks. In *Proceedings of the 21<sup>st</sup> International Conference on Data Engineering (ICDE)*, Tokyo, Japan, April 2005.
82. S. Amer-Yahia, Y. Kotidis, D. Srivastava. Teaching Relational Optimizers About XML Processing. In *Proceedings of the 2<sup>nd</sup> International XML Database Symposium (XSYM)*, Toronto, Canada, August 2004.
83. A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Compressing Historical Information in Sensor Networks. In *Proceedings of ACM SIGMOD*, Paris, France, June 2004.
84. A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Hierarchical in-Network Data Aggregation with Quality Guarantees. In *Proceedings of EDBT*, Heraklion, Crete, 2004.
85. S. Amer-Yahia, Y. Kotidis. A Web-Services Architecture for Efficient XML Data Exchange. In *Proceedings of the 20<sup>th</sup> International Conference on Data Engineering*, Boston, 2004.
86. J. Abello, Y. Kotidis. Hierarchical Graph Indexing. In *Proceedings of International Conference on Information and Knowledge Management (CIKM)*, New Orleans, Nov. 2003.
87. Y. Sismanis, A. Deligiannakis, Y. Kotidis, N. Roussopoulos. Hierarchical Dwarfs for the Rollup Cube. In *Proceedings of ACM International Workshop on Data Warehousing and OLAP (DOLAP)*, New Orleans, LA, November 2003.
88. P. Tsaparas, T. Palpanas, Y. Kotidis, N. Koudas, D. Srivastava. Ranked Join Indices. In *Proceedings of the 19<sup>th</sup> International Conference on Data Engineering (ICDE)*, IEEE Computer Society, Bangalore, India, March 2003.
89. S. Amer-Yahia, Y. Kotidis, D. Srivastava. XML Publishing: Look at Siblings too!. In *Proceedings of ICDE*, IEEE Computer Society, Bangalore, India, March 2003.
90. S. Amer-Yahia, Y. Kotidis. Efficient Exchange of XML Data Stored in Relations. In *Proceedings of Bases de Données Avancées (BDA)*, Lyons, France, October 2003.
91. A. Gilbert, Y. Kotidis, S. Muthukrishnan, M. Strauss. How to Summarize the Universe: Dynamic Maintenance of Quantiles. In *Proceedings of VLDB Conference*, Hong Kong, August 2002.
92. Y. Sismanis, A. Deligiannakis, N. Roussopoulos, Y. Kotidis. Dwarf: Shrinking the Petacube. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, Madison, Wisconsin, USA, June 2002.

93. A. Gilbert, S. Guha, P. Indyk, Y. Kotidis, S. Muthukrishnan, M. Strauss. Fast, Small-Space Algorithms for Approximate Histogram Maintenance. In *Proceedings of the 34<sup>th</sup> ACM Symposium on Theory of Computing (STOC)*, Montréal, Québec, Canada, May 2002.
94. Y. Kotidis. A Data Warehousing Architecture for Enabling Service Provisioning Process. In *Proceedings of the 27<sup>th</sup> Very Large Data Bases (VLDB) Conference*, Rome, Italy, 2001.
95. A. Gilbert, Y. Kotidis, S. Muthukrishnan, M. Strauss. Surfing Wavelets on Streams: One-Pass Summaries for Approximate Aggregate Queries. In *Proceedings of the 27<sup>th</sup> Very Large Data Bases (VLDB) Conference*, Rome, Italy, September 2001.
96. A. Gilbert, Y. Kotidis, S. Muthukrishnan, M. Strauss. Optimal and Approximate Computation of Summary Statistics for Range Aggregates. In *Proceedings of ACM Symposium on Principles of Database Systems (PODS)*, Santa Barbara, California, USA, May 2001.
97. Y. Kotidis, Y. Sismanis, N. Roussopoulos. Shared Index Scans for Data Warehouses. In *Proceedings of International Conference on Data Warehousing and Knowledge Discovery (DEXA/DaWaK)*, Munich, Germany, September 2001.
98. Y. Kotidis, N. Roussopoulos. DynaMat: A Dynamic View Management System for Data Warehouses. In *Proceedings of ACM SIGMOD International Conference on Management of Data (best paper award)*, Philadelphia, Pennsylvania, USA, June 1999.
99. N. Roussopoulos, Y. Kotidis, Y. Sismanis. The MultiSync Controller of the Cubetree Storage Organization. In *proceedings of ACM SIGMOD International Conference on Management of Data (Short paper in SIGMOD Demos)*, Philadelphia, Pennsylvania, USA, June 1999.
100. Y. Kotidis, N. Roussopoulos. An Alternative Storage Organization for ROLAP Aggregate Views Based on Cubetrees. In *Proceedings of ACM SIGMOD International Conference on Management of Data*, Seattle, Washington, USA, June 1998.
101. F. Korn, A. Labrinidis, Y. Kotidis, C. Faloutsos. Ratio Rules: A New Paradigm for Fast, Quantifiable Data Mining. In *Proceedings of the 24<sup>th</sup> Very Large Data Bases (VLDB) Conference*, New York City, NY, USA, August 1998.
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### **U.S. Patents**

113. Join Paths Across Multiple Databases. US patent number 7630967, December 2009
114. Method and Apparatus for Updating Correlated Tables, AT&T Labs, submitted 2006-0610.
115. Updates through Views, US patent number 7440957, October 2008.
116. Snapshot Queries and Data-Centric Sensor Networks, AT&T Labs-Research, submitted 2004-0238.
117. Bandwidth Constrained Queries in Sensor Networks, AT&T Labs-Research, submitted 2004-0237.
118. Dynamic Maintenance of Quantile Summaries, AT&T Labs-Research, submitted 2002-0200.
119. Method and Apparatus for Using Wavelets to Produce Data Summaries, US patent 7296014, November 2007.
120. Method and Apparatus for Ranked Join Indices, US patent 7185012, February 2007.
121. Method and Apparatus for Using Histograms to Produce Data Summaries, US patent 7417954, August 2008.

### **Professional Activities**

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- Program Committee Area Chair (Streams and Sensor Networks), 32nd IEEE International Conference on Data Engineering, Helsinki, Finland, May 2016.
- General chair, 13th Hellenic Database Management Symposium, Athens, Greece, 2015.
- Local Arrangements Chair, ACM SIGMOD International Conference on Management of Data, Athens, Greece, 2011.
- General Chair, 8<sup>th</sup> International ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDE 2009), Lyon France, 2009.
- Program Co-chair, 7<sup>th</sup> International ACM Workshop on Data Engineering for Wireless and Mobile Access (MobiDe 2008), Vancouver Canada, 2008.
- Encyclopedia of Database Systems, Area Editor in “Views and View Maintenance”, Springer.
- Program Committee member on more than 50 international conferences and workshops.
- Member of ACM Special interest group on Management of Data and of IEEE.
- National Science Foundation (NSF) Panel: Information and Data Management Program, 2003.

### **Personal Data**

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- Married, four sons.