

# CHRISTOS FALOUTSOS

## PERSONAL

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## EDUCATION

*Ph.D.* (1987), Univ. of Toronto, in Computer Science.  
*M.Sc.* (1982), Univ. of Toronto, in Computer Science.  
*B.Sc.* (1981), National Technical Univ. of Athens, in Electrical Engineering.

## UNIVERSITY EXPERIENCE

1981-1985    Tutor and instructor in several introductory and data base courses at Univ. of Toronto.  
1985-1991    Assistant Professor, Department of Computer Science, University of Maryland at College Park. Date of initial appointment: 8/16/1985.  
1991-1998    Associate Professor, Department of Computer Science, University of Maryland at College Park. Date of appointment: August 1991.  
1997-1998    Visiting Associate Professor, Department of Computer Science, Carnegie Mellon University.  
1998-2000    Associate Professor, Department of Computer Science, Carnegie Mellon University.  
2000-        Full Professor, Department of Computer Science, Carnegie Mellon University.

## PUBLICATIONS

### BOOK

1. Christos Faloutsos, *Searching multimedia databases by content*, Kluwer Academic Publishers, Norwell, MA, 1996. ISBN 0-7923-9777-0.

### BOOK CHAPTERS.

1. C. Faloutsos and S. Christodoulakis, *Access Methods for Documents*, in "Office Information Systems", Springer Verlag 1984, (Editor: D. Tschritzis).
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5. Manish Arya, William Cody, Christos Faloutsos, Joel Richardson and Arthur Toga *Design and Implementation of QBISM, a 3-D Medical Image Database System*, in "Multimedia Database Systems: Issues and Research Directions". Editors: Sushil Jajodia and V.S. Subrahmanian, Springer Verlag, 1996.
6. Christos Faloutsos *Indexing of Multimedia Databases* in "Multimedia Databases in Perspective". Editors: P.G.M. Apers, H.M. Blanken, M.A.W. Houtsma, Springer Verlag London, March 1997.
7. Christos Faloutsos *Spatial, Text and Multimedia Databases* in "Advanced Database Systems". Editor: Carlo Zaniolo. Morgan Kaufmann Publishers Inc., San Francisco, CA, May 1997.

8. F. Korn, N. Sidiropoulos, C. Faloutsos, E. Siegel, Z. Protopapas. *Efficient and Effective Nearest Neighbor Search in a Medical Image Database of Tumor Shapes*, in “Image Description and Retrieval”. Editor: Enrico Vicario. Plenum Press, Italy, 1997.
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10. Christos Faloutsos, *Multimedia IR: Indexing and Searching*, in “Modern Information Retrieval” Editors: Ricardo Baeza-Yates and Berthier Ribeiro-Neto. Addison Wesley Longman, 1999.
11. Christos Faloutsos *Multimedia Indexing* in “Image Databases: Search and Retrieval of Digital Imagery”. Editors: Vittorio Castelli and Lawrence Bergman. Wiley, 2002
12. Spiros Papadimitriou, Anthony Brockwell and Christos Faloutsos *Adaptive, Automatic Stream Mining* in “Data Stream Management: Processing High-Speed Data Streams”. Editors: Minos Garofalakis, Johannes Gehrke, Rajeev Rastogi. Springer, 2006.
13. Spiros Papadimitriou, Jimeng Sun, Christos Faloutsos, *Dimensionality Reduction and Forecasting on Streams*, in: Charu Aggarwal (ed.), "Data Streams: Models and Algorithms", Kluwer, 2006.
14. Deepayan Chakrabarti and Christos Faloutsos *Graph Patterns and the R-MAT Generator* in “Mining Graph Data”. Editors: Diane J. Cook and Lawrence B. Holder. Wiley, 2007.
15. Dimitris Margaritis, Christos Faloutsos and Sebastian Thrun *NetCube: Fast, Approximate Database Queries Using Bayesian Networks* in “Bayesian Network Technologies: Applications and Graphical Models”. Editors: Ankush Mittal and Ashraf Kassim. IGI Global, March 2007.

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- J36. Guido Proietti and Christos Faloutsos *Accurate Modeling of Region Data* IEEE TKDE, 13, 6, Nov./Dec. 2001, pp. 874-883.

- J37. Costas Georgiadis, Peter Triantafillou and Christos Faloutsos *Fundamentals of Scheduling and Performance of Video Tape Libraries* Multimedia Tools and Applications Journal (MTAP) 18(2), pp. 137-158, 2002.
- J38. Caetano Traina, Agma Traina, Christos Faloutsos, and Bernhard Seeger *Fast Indexing and Visualization of Metric Datasets using Slim-trees* IEEE-TKDE, 14,2, March-April 2002, pp. 244-260.
- J39. Flip Korn, Bernd-Uwe Pagel and Christos Faloutsos *On the 'Dimensionality Curse' and the 'Self-Similarity Blessing'* IEEE-TKDE, special issue (best of ICDE2000), vol. 13, no. 1, pp. 96-111, Jan./Feb. 2001.
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- J51. Jurij (Jure) Leskovec, Jon Kleinberg and Christos Faloutsos *Graph Evolution: Densification and Shrinking Diameters* ACM TKDD, 1(1), 2007.
- J52. Elaine P.M. de Sousa, Agma J.M. Traina, Caetano Traina Jr. and Christos Faloutsos *Measuring Evolving Data Streams' Behavior through Their Intrinsic Dimension* New Generation Computing, 25,1, 2007, pp. 33-59.
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- J54. Hanghang Tong, Christos Faloutsos and Jia Yu (Tim) Pan *Random walk with restart: Fast solutions and applications* Knowledge and Information Systems, Springer, 2007
- J55. Christian Boehm, Christos Faloutsos, Jia-Yu Pan, and Claudia Plant *RIC: Parameter-free noise-robust clustering* ACM TKDD, 1,3, article 10, Dec. 2007.
- J56. Jimeng Sun, Dacheng Tao, Spiros Papadimitriou, Philip S. Yu and Christos Faloutsos *Incremental Tensor Analysis: theory and applications* ACM Transactions on Knowledge Discovery from Data (TKDD), 2(3), 2008.
- J57. Andreas Krause, Jure Leskovec, Carlos Guestrin, Jeanne VanBriesen and Christos Faloutsos *Efficient Sensor Placement Optimization for Securing Large Water Distribution Networks* American Society of Civil Engineers (ASCE), 134, 6, Nov. 2008.
- J58. Jimeng Sun, Charalampos E. Tsourakakis, Evan Hoke, Christos Faloutsos and Tina Eliassi-Rad *Two heads better than one: pattern discovery in time-evolving multi-aspect data* Journal Data Mining and Knowledge Discovery Volume 17, Number 1, pp 111-128, August, 2008
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*Multiple Resolutions Information Systems* (to appear, 2009).

- J60. Leman Akoglu and Christos Faloutsos *RTG: a recursive realistic graph generator using random typing*. *Data Mining and Knowledge Discovery*, 19, 2, Oct. 2009 (DOI: 10.1007/s10618-009-0140-7)

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2. M. Arya, W. Cody, C. Faloutsos, J. Richardson and A. Toga *QBISM: A Prototype 3-D Medical Image Database System* *IEEE Data Engineering*, 16,1, pp. 38-42, March 1993.
3. Christos Faloutsos and Ibrahim Kamel *High Performance R-trees* *IEEE Data Engineering*, Sept. 1993.
4. Christos Faloutsos *Fast Searching by Content in Multimedia Databases* *IEEE Data Engineering*, Dec. 1995.
5. Daniel Barbara, William DuMouchel, Christos Faloutsos, Peter J. Haas, Joseph M. Hellerstein, Yannis Ioannidis, H.V. Jagadish, Theodore Johnson, Raymond Ng, Viswanath Poosala, Kenneth A. Ross, Kenneth C. Sevcik *The New Jersey Data Reduction Report* *IEEE Data Engineering Bulletin*, 20, 4, pp. 3-45, December 1997.
6. Sebastian Thrun, Christos Faloutsos, Tom Mitchell, Larry Wasserman *Automated Learning and Discovery: State-Of-The-Art and Research Topics in a Rapidly Growing Field*, *AI Magazine*, 1999.

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- C11. C. Faloutsos and R. Chan, *Fast Text Access Methods for Optical and Large Magnetic Disks: Designs and Performance Comparison*, 14th International Conf. on VLDB, Aug. 1988, pp. 280-293.
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- C45. Byoung-Kee Yi, H.V. Jagadish and Christos Faloutsos *Efficient Retrieval of Similar Time Sequences Under Time Warping* ICDE 98, Orlando, Florida, Feb. 23 - 27, 1998.
- C46. Yihong Gong, Guido Proietti and Christos Faloutsos *Image Indexing and Retrieval Based on Human Perceptual Color Clustering*, Proc. of the IEEE Int. Conference on Computer Vision and Pattern Recognition (CVPR'98), Santa Barbara, CA, June 23-25, 1998.
- C47. Erik Riedel, Garth Gibson, Christos Faloutsos *Active Storage for Large-Scale Data Mining and Multimedia Applications* VLDB 1998, pp. 62-73, New York, NY. Also available as CMU-CS-98-111 Technical Report
- C48. Yoshiharu Ishikawa, Ravishankar Subramanya, Christos Faloutsos *MindReader: Querying databases through multiple examples* VLDB 1998, pp. 218-227, New York, NY. Also available as CMU-CS-98-119 Technical Report.
- C49. Flip Korn, Alexandros Labrinidis, Yannis Kotidis, Christos Faloutsos *Ratio Rules: A New Paradigm for Fast, Quantifiable Data Mining* VLDB 1998, pp. 582-593, New York, NY.
- C50. Erik Riedel, Garth Gibson, Andrew Moore, Christos Faloutsos *Active Disks for Large-Scale Data Mining* 1998 ACM-SIGMOD Workshop on Research Issues in Data Mining and Knowledge Discovery, Seattle, June 5, 1998.
- C51. Guido Proietti and Christos Faloutsos *Selectivity Estimation of Window Queries for Line Segment Datasets* Seventh Int. Conference on Information and Knowledge Management (CIKM), pp. 340-347, Washington, DC, Nov. 3-7, 1998.
- C52. Guido Proietti, Christos Faloutsos *I/O complexity for range queries on region data stored using an R-tree* International Conference on Data Engineering (ICDE) Sydney, Australia, March 23-26, 1999.
- C53. Michalis Faloutsos, Petros Faloutsos, Christos Faloutsos *On Power-Law Relationships of the*

- Internet Topology SIGCOMM 1999*, Cambridge, MA, Aug. 30 - Sept. 3, 1999.
- C54. Tara Madhyastha, Garth Gibson and Christos Faloutsos *Informed Prefetching of Collective I/O Requests* Supercomputing 99, Portland, Oregon, Nov. 1999.
- C55. Flip Korn, Bernd-Uwe Pagel and Christos Faloutsos *Deflating the Dimensionality Curse using Multiple Fractal Dimensions*, ICDE 2000, San Diego, CA, pp. 589-598, Feb.-March 2000
- C56. Byong-Kee Yi, Nikolaos D. Sidiropoulos, Theodore Johnson, H.V. Jagadish, Christos Faloutsos and Alex Biliris *Online Data Mining for Co-Evolving Time Sequences*, ICDE 2000, San Diego, CA, pp. 13-22, Feb.-March 2000.
- C57. Caetano Traina Jr., Agma J. M. Traina, Bernhard Seeger, Christos Faloutsos, *Slim-trees: High Performance Metric Trees Minimizing Overlap Between Nodes*, Seventh Int. Conf. on Extending Database Technology, (EDBT 2000), pp. 51-65, Konstanz, Germany.
- C58. Erik Riedel, Christos Faloutsos, Gregory R. Ganger and David Nagle, *Data Mining on an OLTP System (Nearly) for Free* SIGMOD 2000, Dallas, Texas, pp. 13-21, May 2000.
- C59. Christopher R. Palmer and Christos Faloutsos, *Density Biased Sampling: An Improved Method for Data Mining and Clustering*, SIGMOD 2000, Dallas, Texas, pp. 82-92, May 2000.
- C60. Christos Faloutsos, Bernhard Seeger, Agma J. M. Traina and Caetano Traina Jr., *Spatial Join Selectivity Using Power Laws*, SIGMOD 2000, Dallas, Texas, pp. 177-188, May 2000.
- C61. Leejay Wu, Christos Faloutsos, Katia Sycara and Terry Payne *FALCON: Feedback Adaptive Loop for Content-Based Retrieval* VLDB 2000, Kairo, Egypt, Sept. 10-14, 2000.
- C62. Byoung-Kee Yi and Christos Faloutsos *Fast Time Sequence Indexing for Arbitrary Lp Norms* VLDB 2000, Kairo, Egypt, Sept. 10-14, 2000.
- C63. Caetano Traina Jr., Agma Traina, Leejay Wu and Christos Faloutsos *Fast feature selection using fractal dimension* XV Brazilian Symposium on Databases (SBBD), Paraiba, Brazil, October 2000.
- C64. Roberto F. Santos Filho, Agma Traina, Caetano Traina Jr. and Christos Faloutsos *Similarity search without tears: the OMNI family of all-purpose access methods* ICDE 2001, Heidelberg, Germany, April 2-6 2001.
- C65. Rong Jin and Christos Faloutsos *Meta-scoring: Automatically Evaluating Term Weighting Schemas in IR without Precision-Recall* SIGIR 2001, New Orleans LA, Sept. 9-13, 2001.
- C66. Christopher R. Palmer, Georgios Siganos, Michalis Faloutsos, Christos Faloutsos and Phil Gibbons *The connectivity and fault-tolerance of the Internet topology* Workshop on Network Related Data Management (NRDM 2001), Santa Barbara, CA, May 25, 2001.
- C67. Jia-Yu Pan and Christos Faloutsos *VideoGraph: A New Tool for Video Mining and Classification* JCDL'01, p. 116-117.
- C68. Agma Traina, Caetano Traina, Spiros Papadimitriou, and Christos Faloutsos *Tri-Plots: Scalable Tools for Multidimensional Data Mining* KDD 2001, San Francisco, CA, August 2001.
- C69. Zhiqiang Bi, Christos Faloutsos and Flip Korn *The "DGX" Distribution for Mining Massive, Skewed Data* KDD 2001, San Francisco, CA, August 2001. (*"Best Paper Runner-Up" Award.*)
- C70. Dimitris Margaritis, Christos Faloutsos and Sebastian Thrun *NetCube: A Scalable Tool for Fast Data Mining and Compression* VLDB 2001, Rome, Italy.
- C71. Mengzhi Wang, Tara Madhyastha, Ngai Hang Chang, Spiros Papadimitriou, and Christos Faloutsos *Data Mining Meets Performance Evaluation: Fast Algorithms for Modeling Bursty Traffic* ICDE 2002, San Jose, CA, 2/26/2002 - 3/1/2002.
- C72. Myoung-Ah Kang, Christos Faloutsos, Robert Laurini and Sylvie Servigne *Indexing Values in Continuous Field Databases* Int. Conf. on Extending Database Technology, EDBT 2002 March 24-28 2002, Prague
- C73. Christopher R. Palmer, Phillip Gibbons and Christos Faloutsos *ANF: A Fast and Scalable Tool for Data Mining in Massive Graphs* KDD 2002, Edmonton, Alberta, Canada, July 2002
- C74. Leejay Wu and Christos Faloutsos *Making every bit count: Fast nonlinear axis scaling* KDD 2002, Edmonton, Alberta, Canada, July 2002 (poster)
- C75. Mengzhi Wang, Anastassia Ailamaki and Christos Faloutsos *Capturing the spatio-temporal behavior of real traffic data* Performance 2002 (IFIP Int. Symp. on Computer Performance Modeling, Measurement and Evaluation), Rome, Italy, Sept. 2002. (*Best Student paper award.*)
- C76. Tim Pan and Christos Faloutsos *"GeoPlot": Spatial Data Mining on Video Libraries* CIKM

- 2002, Washington DC, Nov. 2002.
- C77. Deepay Chakrabarti and Christos Faloutsos *F4: Large-Scale Automated Forecasting using Fractals* CIKM 2002, Washington DC, Nov. 2002.
- C78. Jia-Yu (Tim) Pan and Christos Faloutsos *VideoCubes: A Novel Tool for Video Mining and Classification* ICADL 2002, Singapore, Dec. 11-14, 2002
- C79. Jia-Yu Pan, Srinivasan Seshan and Christos Faloutsos *FastCARS: Fast, Correlation-Aware Sampling for Network Data Mining* GlobeCom 2002, Taipei, Taiwan, Nov. 17-21 2002.
- C80. Spiros Papadimitriou, Hiroyuki Kitagawa, Phil Gibbons and Christos Faloutsos *LOCI: Fast Outlier Detection Using the Local Correlation Integral* ICDE 2003, Bangalore, India, March 5 - March 8, 2003.
- C81. Christopher R. Palmer and Christos Faloutsos *Electricity Based External Similarity of Categorical Attributes* PAKDD 2003, Seoul, South Korea, April-May 2003.
- C82. Spiros Papadimitriou, Anthony Brockwell and Christos Faloutsos *Adaptive, Hands-Off Stream Mining* VLDB 2003, Berlin, Germany, Sept. 2003.
- C83. Spiros Papadimitriou and Christos Faloutsos *Cross-Outlier Detection* SSTD (8th International Symposium on Spatial and Temporal Databases) Santorini island, Greece, July 24-27, 2003.
- C84. Yang Wang, Deepayan Chakrabarti, Chenxi Wang and Christos Faloutsos *Epidemic Spreading in Real Networks: An Eigenvalue Viewpoint* 22nd Symposium on Reliable Distributed Computing (SRDS2003) Florence, Italy, Oct. 6-8, 2003.
- C85. Yufei Tao, Christos Faloutsos, Dimitri Papadias *The Power-Method: A Comparison Estimation Technique for Multi-Dimensional Queries* CIKM, New Orleans, LA, Nov. 3-8 2003.
- C86. Yufei Tao, Dimitri Papadias and Christos Faloutsos *Approximate Temporal Aggregation*. 20th IEEE International Conference on Data Engineering (ICDE), 2004.
- C87. Deepayan Chakrabarti, Yiping Zhan and Christos Faloutsos *R-MAT: A Recursive Model for Graph Mining* SIAM Int. Conf. on Data Mining, April 2004.
- C88. Jia-Yu Pan, Christos Faloutsos, Masafumi Hamamoto and Hiroyuki Kitagawa *AutoSplit: Fast and Scalable Discovery of Hidden Variables in Stream and Multimedia Databases* PAKDD, Sidney, Australia, May 2004. (*best student paper award*).
- C89. Cui Zhu, Christos Faloutsos, Hiroyuki Kitagawa, Spiros Papadimitriou *OBE: Outlier By Example* PAKDD, Sidney, Australia, May 2004.
- C90. Yufei Tao, Christos Faloutsos, Dimitris Papadias, Bin Liu *Prediction and Indexing of Moving Objects with Unknown Motion Patterns* SIGMOD Conference, Paris, France, May 2004
- C91. Orna Raz, Rebecca Buchheit, Mary Shaw, Philip Koopman, and Christos Faloutsos *Automated Assistance for Eliciting User Expectations* International Conference on Software Engineering and Knowledge Engineering (SEKE'04), Banff, Canada, June 2004.
- C92. Christos Faloutsos, Kevin McCurley, Andrew Tomkins *Fast Discovery of 'Connection Subgraphs'* KDD 2004, Seattle, WA, Aug. 2004
- C93. Deepayan Chakrabarti, Spiros Papadimitriou, Dharmendra Modha and Christos Faloutsos *Fully Automatic Cross-Associations* KDD 2004, Seattle, WA, Aug. 2004
- C94. Edoardo Airoldi, Christos Faloutsos *Recovering Latent Time-Series from their Observed Sums: Network Tomography with Particle Filters* KDD 2004, Seattle, WA, Aug. 2004
- C95. Jia-Yu Pan, Hyung-Jeong Yang, Christos Faloutsos, Pinar Duygulu *Automatic Multimedia Cross-modal Correlation Discovery* KDD 2004, Seattle, WA, Aug. 2004 (Poster paper)
- C96. Rakesh Agrawal, Roberto Bayardo, Christos Faloutsos, Jerry Kiernan, Ralf Rantza, Ramakrishnan Srikant *Auditing Compliance with a Hippocratic Database* VLDB 2004, Toronto, Canada, Sept. 2004.
- C97. Vasileios Megalooikonomou, Qiang Wang, Guo Li, Christos Faloutsos *A Multiresolution Symbolic Representation of Time Series* ICDE 2005, Tokyo, Japan.
- C98. Yasushi Sakurai, Spiros Papadimitriou and Christos Faloutsos *AutoLag: Automatic Discovery of Lag Correlations in Stream Data*, ICDE 2005, Tokyo, Japan (poster paper).
- C99. Yasushi Sakurai, Spiros Papadimitriou, Christos Faloutsos: *BRAID: Stream Mining through Group Lag Correlations* SIGMOD 2005, Baltimore MD.
- C100. Yasushi Sakurai, Masatoshi Yoshikawa and Christos Faloutsos *FTW: Fast Similarity Search under the Time Warping Distance* PODS 2005, Baltimore MD.

- C101. Jure Leskovec, Jon Kleinberg and Christos Faloutsos *Graphs over Time: Densification Laws, Shrinking Diameters and Possible Explanations* KDD 2005, Chicago, IL, Aug. 2005 ("best research paper" award).
- C102. Spiros Papadimitriou, Jimeng Sun and Christos Faloutsos *Streaming Pattern Discovery in Multiple Time-Series* VLDB 2005, Trondheim, Norway.
- C103. Jure Leskovec, Deepayan Chakrabarti, Jon Kleinberg and Christos Faloutsos *Realistic, Mathematically Tractable Graph Generation and Evolution, Using Kronecker Multiplication*. ECML/PKDD 2005, Porto, Portugal.
- C104. Spiros Papadimitriou, Aristides Gionis, Panayiotis Tsaparas, Heikki Mannila, and Christos Faloutsos, *Parameter-Free Spatial Data Mining Using MDL* Fifth IEEE International Conference on Data Mining, New Orleans, Louisiana, U.S.A., November 27-30, 2005.
- C105. Jimeng Sun, Huiming Qu, Deepayan Chakrabarti, and Christos Faloutsos, *Neighborhood Formation and Anomaly Detection in Bipartite Graph* Fifth IEEE International Conference on Data Mining, New Orleans, Louisiana, U.S.A., November 27-30, 2005.
- C106. Cui Zhu, Hiroyuki Kitagawa, and Christos Faloutsos, *Example-Based Robust Outlier Detection in High Dimensional Datasets* Fifth IEEE International Conference on Data Mining, New Orleans, Louisiana, U.S.A., November 27-30, 2005.
- C107. Arnab Bhattacharya, Vebjorn Ljosa, Jia-Yu Pan, Mark Verardo, Hyunjeong Yang, Christos Faloutsos, and Ambuj Singh, *ViVo: Visual Vocabulary Construction for Mining Biomedical Images* Fifth IEEE International Conference on Data Mining, New Orleans, Louisiana, U.S.A., November 27-30, 2005. (won one of five 'best student paper' awards).
- C108. Steven W. Schlosser, Jiri Schindler, Stratos Papadomanolakis, Minglong Shao, Anastassia Ailamaki, Christos Faloutsos, and Gregory R. Ganger *On Multidimensional Data and Modern Disks* FAST 2005. (best paper award)
- C109. Jimeng Sun, Spiros Papadimitriou and Christos Faloutsos *Distributed Pattern Discovery in Multiple Streams* PAKDD 2006.
- C110. Christian Boehm, Christos Faloutsos, Jia-Yu Pan, Claudia Plant *Robust Information-theoretic Clustering*, KDD 2006, Philadelphia, PA
- C111. Hanghang Tong, Christos Faloutsos *Center-Piece Subgraphs: Problem Definition and Fast Solutions*, KDD 2006, Philadelphia, PA
- C112. Jimeng Sun, Dacheng Tao, Christos Faloutsos *Beyond Streams and Graphs: Dynamic Tensor Analysis*, KDD 2006, Philadelphia, PA
- C113. Jia-Yu Pan, Andre Balan, Eric P. Xing, Agha Juci Machado Traina, Christos Faloutsos *Automatic Mining of Fruit Fly Embryo Images* (poster) KDD 2006, Philadelphia, PA
- C114. Jure Leskovec, Christos Faloutsos *Sampling from Large Graphs* (poster) KDD 2006, Philadelphia, PA.
- C115. Duen Horng (Polo) Chau, Shashank Pandit and Christos Faloutsos *Detecting Fraudulent Personalities in Networks of Online Auctioneers* PKDD 2006, Berlin Germany.
- C116. Hanghang Tong, Christos Faloutsos, and Jia-Yu Pan *Fast Random Walk with Restart and Its Applications* ICDM 2006, Hong Kong.
- C117. Yasushi Sakurai, Christos Faloutsos and Masashi Yamamuro *Stream Monitoring under the Time Warping Distance* ICDE 2007, Istanbul, Turkey
- C118. Deepayan Chakrabarti, Jure Leskovec, Christos Faloutsos, Samuel Madden, Carlos Guestrin and Michalis Faloutsos *Information Survival Threshold in Sensor and P2P Networks* INFOCOM, Anchorage, Alaska, USA, May 2007.
- C119. Jimeng Sun, Yinglian Xie, Hui Zhang and Christos Faloutsos *Less is More: Compact Matrix Decomposition for Large Sparse Graphs* SDM'07, Minneapolis, MN, USA, April 26-28, 2007. ("best research paper" award).
- C120. Jure Leskovec, Mary McGlohon, Christos Faloutsos, Natalie Glance and Matthew Hurst *Cascading Behavior in Large Blog Graphs* (poster presentation); SDM'07, Minneapolis, MN, USA, April 26-28, 2007.
- C121. Shashank Pandit, Duen Horng (Polo) Chau, Samuel Wang and Christos Faloutsos *NetProbe: A Fast and Scalable System for Fraud Detection in Online Auction Networks* WWW 2007, Banff, Alberta, Canada, May 8-12, 2007.

- C122. Mary McGlohon, Jure Leskovec, Christos Faloutsos, Matthew Hurst and Natalie Glance *Finding patterns in blog shapes and blog evolution* Int. Conf. on Weblogs and Social Media Boulder, CO, USA, March 26-28, 2007.
- C123. Jure Leskovec, Andreas Krause, Carlos Guestrin, Christos Faloutsos, Jeanne VanBriesen, and Natalie Glance *Cost-effective Outbreak Detection in Networks* ACM SIGKDD Conference, San Jose, CA, August 2007.
- C124. Hanghang Tong, Yehuda Koren, and Christos Faloutsos, *Fast Direction-Aware Proximity for Graph Mining* ACM SIGKDD Conference, San Jose, CA, August 2007.
- C125. Zhen Guo, Zhongfei Zhang, Eric Xing, and Christos Faloutsos, *Enhanced Max Margin Learning on Multimodal Data Mining in a Multimedia Database* ACM SIGKDD Conference, San Jose, CA, August 2007.
- C126. Jimeng Sun, Spiros Papadimitriou, Philip S. Yu, and Christos Faloutsos, *GraphScope: Parameter-free Mining of Large Time-evolving Graphs* ACM SIGKDD Conference, San Jose, CA, August 2007.
- C127. Hanghang Tong, Brian Gallagher, Christos Faloutsos, and Tina Eliassi-Rad *Fast Best-Effort Pattern Matching in Large Attributed Graphs* (short paper) ACM SIGKDD Conference, San Jose, CA, August 2007.
- C128. Zhen Guo, Zhongfei Zhang, Eric Xing, and Christos Faloutsos, *A Max Margin Framework on Image Annotation and Multimodal Image Retrieval* ICME, Beijing, China, July 2-5, 2007.
- C129. Brent Bryan, Frederick Eberhardt and Christos Faloutsos *Compact Similarity Joins* ICDE 2008, Cancun, Mexico, April 2008 (short paper).
- C130. Jure Ferlez, Christos Faloutsos, Jure Leskovec, Dunja Mladenic, Marko Grobelnik. *Monitoring Network Evolution using MDL*. ICDE 2008, Cancun, Mexico, April 2008 (short paper).
- C131. Hanghang Tong, Spiros Papadimitriou, Philip S. Yu and Christos Faloutsos *Proximity Tracking on Time-Evolving Bipartite Graphs* SDM 08, Atlanta, GA, April 24-26, 2008.
- C132. Zhen Guo, Zhongfei Zhang, Eric P. Xing and Christos Faloutsos *Semi-supervised Learning Based on Semiparametric Regularization* SDM 08, Atlanta, GA, April 24-26, 2008.
- C133. Kensuke Onuma, Christos Faloutsos and Jessica Hodgins *FMDistance: A fast and effective distance function for motion capture data* (short paper), EuroGraphics 2008, Crete, Greece, April 14-18 2008.
- C134. Lei Li, McCann Jim, Christos Faloutsos, Nancy Pollard *Laziness is a virtue: Motion stitching using effort minimization* (short paper), EuroGraphics 2008, Crete, Greece, April 14-18 2008.
- C135. Christian Boehm, Christos Faloutsos and Claudia Plant *Outlier-robust Clustering using ICA* SIGMOD 2008, Vancouver, Canada.
- C136. John D. Strunk, Eno Thereska, Christos Faloutsos and Gregory R. Ganger, *Using Utility to Provision Storage Systems* FAST, San Jose, CA, Feb. 26-29, 2008.
- C137. Mukund Seshadri, Sridhar Machiraju, Ashwin Sridharan, Jean Bolot, Christos Faloutsos and Jure Leskovec *Mobile Call Graphs: Beyond Power-Law and Lognormal Distributions* KDD 2008, Las Vegas, NV, Aug. 2008.
- C138. Mary McGlohon, Leman Akoglu and Christos Faloutsos *Weighted Graphs and Disconnected Components: Patterns and a Generator* KDD 2008, Las Vegas, NV, Aug. 2008.
- C139. Lei Li, Wenjie Fu, Fan Guo, Todd Mowry and Christos Faloutsos *Cut-And-Stitch: Efficient Parallel Learning of Linear Dynamical Systems on SMPs* KDD 2008, Las Vegas, NV, Aug. 2008.
- C140. Brian Gallagher, Hanghang Tong, Tina Eliassi-Rad and Christos Faloutsos *Using Ghost Edges for Classification in Sparsely Labeled Networks* KDD 2008, Las Vegas, NV, Aug. 2008.
- C141. Hanghang Tong, Spiros Papadimitriou, Jimeng Sun, Philip Yu and Christos Faloutsos, *Colibri: Fast Mining of Large Static and Dynamic Graphs* KDD 2008, Las Vegas, NV, Aug. 2008.
- C142. Jimeng Sun, Tina Eliassi-Rad, Charalampos Tsourakakis, Evan Hoke and Christos Faloutsos *Two heads better than one: Pattern Discovery in Time-evolving Multi-Aspect Data* PKDD 2008, Sept. 15-19 2008, Antwerp, Belgium.
- C143. Spiros Papadimitriou, Jimeng Sun, Philip Yu and Christos Faloutsos *Hierarchical, Parameter-Free Community Discovery* PKDD 2008, Sept. 15-19 2008, Antwerp, Belgium.
- C144. Hanghang Tong, Yasushi Sakurai, Tina Eliassi-Rad and Christos Faloutsos *Fast Mining of Complex Time-Stamped Events* CIKM 2008, Napa Valley, CA, USA, October 26-30, 2008.

- C145. Humberto Razente, Maria Camila Barioni, Agma Traina, Christos Faloutsos, and Caetano Traina *A Novel Optimization Approach to Efficiently Process Aggregate Similarity Queries in MAM* CIKM 2008, Napa Valley, CA, USA, October 26-30, 2008.
- C146. Ana Paula Appel, Deepayan Chakrabarti, Christos Faloutsos, Ravi Kumar, Jure Leskovec and Andrew Tomkins *ShatterPlots: Fast Tools for Mining Large Graphs* SDM 2008
- C147. Chao Liu, Fan Guo, Christos Faloutsos *BBM: Deriving Click Models from Petabyte-scale Data* KDD 2009, Paris France.
- C148. Charalampos Tsourakakis, U Kang, Gary Miller, Christos Faloutsos *Doulion: Counting triangles in massive graphs with a coin* KDD 2009, Paris France.
- C149. Lei Li, Jim McCann, Nancy Pollard, Christos Faloutsos *DynaMMo: Mining and Summarization of Coevolving Sequences with Missing Values* KDD 2009, Paris France.
- C150. Nan Du, Christos Faloutsos, Bai Wang, Leman Akoglu *Large Human Communication Networks: Patterns and a Utility-Driven Generator* KDD 2009, Paris France.
- C151. Kensuke Onuma, Hanghang Tong, Christos Faloutsos *TANGENT: A Novel Surprise-Me Recommendation Algorithm* KDD 2009, Paris France.
- C152. B. Aditya Prakash, Nicholas Valler, David Andersen, Michalis Faloutsos, Christos Faloutsos *BGP-lens: Patterns and Anomalies in Internet Routing Updates* (industrial track) KDD 2009, Paris France.
- C153. Mary McGlohon, Stephen Bay, Markus Anderle, David Steier, Christos Faloutsos *SNARE: A Link Analytic System for Graph Labeling and Risk Detection* (industrial track), KDD 2009, Paris France.
- C154. Hanghang Tong, Huiming Qu, Hani Jamjoom and Christos Faloutsos *iPoG: Fast Interactive Proximity Querying on Graphs* (short paper) CIKM 2009, Hong Kong, China, Nov. 2009.
- C155. Leman Akoglu and Christos Faloutsos *RTG: A Recursive Realistic Graph Generator using Random Typing*. ECML PKDD, Bled, Slovenia, Sep. 2009. (invited for fast track publication as one of top 14 papers)
- C156. Robson Leonardo Ferreira Cordeiro, Agma J.M. Traina, Christos Faloutsos, and Caetano Traina, *Finding Clusters in Subspaces of Very Large, Multi-dimensional Datasets* ICDE, Long Beach, CA, March 2010.
- C157. U Kang, Charalampos Tsourakakis, and Christos Faloutsos, *PEGASUS: A Peta-Scale Graph Mining System - Implementation and Observations* ICDM, Miami Florida, Dec. 2009
- RELEASED SOFTWARE.
1. Christos Faloutsos, Mehmet Bayraktar, Yik Tan, Xuejun Tang and Wen Wang *DR-tree and DR-tree2* An implementation of the 'Deferred-Split' R-tree a spatial access method for multi-dimensional points. Released through the Office of Technology Liaison (OTL), University of Maryland, College Park; Dec. 1994, May 1996 (University of Maryland Invention Disclosure IS-96-031).

## PATENTS

1. Rakesh Agrawal, William Equitz, Christos Faloutsos, Myron Flickner, Arun Swami, "Method for high-dimensional indexing in a multi-media database", Patent number: 5647058, issued July 8, 1997.
2. Christos Faloutsos, Yossi Matias, Abraham Silberschatz, "Method for Characterizing Information in Data Sets Using Multifractals". Patent number: 5758338, issued May 26, 1998.
3. Christos Faloutsos, H.V. Jagadish, Philip Russell Korn, "Compressed representation of a data base that permits AD HOC querying", Patent number: 5,946,692, issued August 31, 1999.
4. Alexandros Biliaris, Christos Faloutsos, H.V. Jagadish, Theodore Johnson, Nikolaos D. Sidiropoulos, Byoung-Kee Yi "Method and Apparatus for Analyzing Co-evolving Time Sequences". Patent Number: 6,055,491, issued Apr. 25, 2000
5. Paul Bradley, Demetrios Achlioptas, Christos Faloutsos, Usama Fayyad "Method of reducing dimensionality of a set of attributes used to characterize a sparse dataset". Patent Number: 6,735,589, issued May 11, 2004.
6. Christos Faloutsos, Kevin McCurley, Andrew Tomkins "Finding Connection Subgraphs in Social Networks" (pending - filed 2004).
7. Auditing Compliance with a Hippocratic Database, Rakesh Agrawal, Roberto Bayardo, Christos

Faloutsos, Jerry Kiernan, Ralf Rantza, Ramakrishnan Srikant. (pending - filed 2004).

8. Fast Direction-Aware Proximity for Graph Mining, Hanghang Tong, Yehuda Koren, Christos Faloutsos (pending - filed Feb. 2008).

#### **INVITED CONFERENCE SPEAKER**

1. *"Searching Multimedia Databases by Content"* Int. Symposium on Digital Media Information Base (DMIB'97), Nara, Japan, November 26-28, 1997.
2. *"Applications, Requirements, and Databases Tools for Massive Data Mining"* CASCON'97, Data Mining Workshop, Toronto, Ontario, Canada, Nov. 11, 1997.
3. *"Applications, Requirements, and Databases Tools for Massive Data Mining"*. Advances in Digital Libraries (IEEE ADL '98) Santa Barbara, CA, April 22-24, 1998.
4. *"Indexing in Multimedia Databases"*. Invited Speaker, First Workshop on Multimedia Databases and Image Communication (MDIC'99), Salerno, Italy, Oct. 5 1999.
5. *"Massive dimensionality: issues and solutions"* Invited plenary speaker, NSF-IDM workshop, Roanoke, VA, Oct. 2000.
6. *"Indexing and Data Mining in Multimedia Databases"* Invited workshop speaker, Daimler-Chrysler AG, Reserch Center Ulm, Germany, Dec. 2000.
7. *"Sensor Data Mining"* Invited workshop speaker, NSF NGDM workshop, Baltimore, MD, Nov. 2002.
8. *"Finding Patterns in Large, Real Networks"* Invited workshop speaker, N.A.S. Workshop on Dynamic Social Network Analysis, Wash. DC, Nov. 2002.
9. *Multimedia Databases: Indexing, Retrieval and Data Mining* MDIC, Salerno, June 2004.

#### **INVITED KEYNOTE SPEAKER**

1. *"Searching, Data Mining and Visualization of Multimedia data"*, Conference on VISUAL DATABASE SYSTEMS (VDB5), Fukuoka, Japan, May 10-12 2000.
2. *"Multimedia Information Retrieval"*, Workshop on Computational Lexicography and Multimedia Dictionaries, COMLEX 2000, Patras, Greece, Sept. 22-23, 2000.
3. *"Future directions in Data Mining: Streams, Networks, self-similarity and power laws"*, CIKM, McLean, VA, Nov. 2002.
4. *"Next Generation Data Mining Tools: Power laws and self-similarity for graphs, streams and traditional data"*. ECML, Dubrovnik, Croatia, Sept. 2003.
5. *"Advanced Data Mining Tools: Fractals and Power Laws for Graphs, Streams and Traditional Data"*. SIGMOD-Japan 30-th anniversary workshop, Tokyo, Dec. 2004.
6. *"Data Mining Using Fractals"* joint Asia-Pacific Web Conference and Web-Age Information Management (APWeb/WAIM) conference, Huang Shan, China, June 2007.
7. *"Mining Large Graphs"* DBRANK workshop, within ICDE 2008, Cancun, Mexico, April 2008.
8. *"Mining Large Graphs"*, PAKDD, Osaka, Japan, May 2008.
9. *"Mining Large Graphs"*, ASONAM, Athens, Greece, July 2009.

#### **INVITED DISTINGUISHED LECTURES**

1. *"Searching and Data Mining in Multimedia Databases"* Invited Distinguished Lecture, University of Alberta, Canada, March 19, 2001.
2. *"Searching and Data Mining in Multimedia Databases"* Distinguished Lecture Series Univ. of Southern California (USC), Los Angeles, CA, September 21, 2001.
3. *"Discovering Patterns in Streams and Graphs"* Distinguished Lecture Series, Helsinki Graduate School in Computer Science and Engineering, Aug 9-13, 2004.

4. *"Advanced Data Mining Tools: Fractals and Power laws for graphs, streams and traditional data"* Distinguished Lecture Series, Univ. of Illinois, Urbana-Champaign, Oct. 4 2004.
5. *"Data Mining Using Fractals and Power Laws"* Twentieth Anniversary Lecture Series, Boston University, Jan. 31, 2005.
6. *"Data Mining Using Fractals and Power Laws"* Triangle Computer Science Distinguished Lecturer Series (UNC, Duke, NCSU) Feb. 28, 2005.
7. *"Data Mining Using Fractals and Power Laws"* Wright State University, Dept. of CS Distinguished Lecturer Series March 9, 2005.
8. *"Data Mining Using Fractals and Power Laws"* Michigan State University, Dept. of CSE, Distinguished Lecture Series Oct. 14, 2005.
9. *"Data Mining Using Fractals and Power Laws"* Lehigh University, Distinguished Lecture Series Nov. 17, 2005.
10. *"Data Mining Using Fractals and Power Laws"* Ohio State University, Jan. 2006.
11. *"Data Mining Using Fractals and Power Laws"* Florida International University, Feb. 2007.
12. *"Graph Mining: Laws, Generators and Tools"*, UC Irvine, August 8, 2008.
13. *"Graph Mining: Laws, Generators and Tools"*, Conte Distinguished Lecture, Purdue University, Oct. 15, 2007.

#### **INVITED LECTURES**

1. *"An integrated access method for documents"*, Dept. of Computer Science, Univ. of Waterloo, Canada, November 1986.
2. *"Analysis of Object Oriented Spatial Access Methods"*, Research Center of Crete, Heraklion, Greece, July 1987.
3. *"Access Methods for Geometric Data"*, Dept. of Electrical Engineering, National Technical University of Athens, Greece, July 1988.
4. *"Fast Text Access Methods for Optical and Large Magnetic Disks: Designs and Performance Comparison"*, School of Business and Management, University of Maryland, September 1988.
5. *"Data Compression, Storage and Retrieval for Large Databases"*, National Institute for Standards and Technology, April 19, 1989.
6. *"Access Methods for Text and Spatial Data Bases"*, School of Business and Management, University of Maryland, April 28, 1989.
7. *"Fast text retrieval methods for optical and magnetic disks"*, College of Library and Information Services, University of Maryland, May 2, 1989.
8. *"Access Methods for Text and Spatial Data Bases"*, Centre Universitaire d'Informatique, University of Geneva, Switzerland, July 7, 1989.
9. *"Access Methods for Text and Spatial Data Bases"*, Research Center of Crete, Heraklion, Greece, July 19, 1989.
10. *"Spatial Data Access Methods: Survey and Design Goals"*, Invited talk in the 52nd Annual Meeting of the American Society for Information Science (ASIS), October 29 - November 2, 1989.
11. *"Access Methods for Spatial Data Bases"*, AT&T Bell Laboratories, Murray Hill, NJ, March 23, 1990.
12. *"Access Methods for Spatial Data Bases"*, U.S. Bureau of Census, May 2, 1990.
13. *"Access Methods for Text"*, AT&T Bell Laboratories, Murray Hill, NJ, Jan. 18, 1991.
14. *"Parallel R-trees"*, IBM Almaden Research Center, San Jose, CA, June 1992.
15. *"Access Methods for Text"*, SUNSoft Inc., Billerica, MA, July 1992.
16. *"Declustering Using Fractals"*, Stanford University, April 1993.

17. *"Declustering Using Fractals"*, University of Arizona, Tucson AZ, June 1993.
18. *"Indexing Multimedia and Medical Databases"*, University of Toronto, Ontario, Canada, March 1994.
19. *"Fast Pattern Matching in Time-series and Multimedia Databases"*, Supercomputing Research Center, Bowie, MD, June 1, 1994.
20. *"Beyond Uniformity and Independence: Analysis of R-trees Using the Concept of Fractal Dimension"* Techn. University of Crete, Chanea, Greece, July 13, 1994.
21. *"Fast Subsequence Matching in Time-Series Databases"* Techn. University of Crete, Chanea, Greece, July 19, 1994.
22. *"Indexing Multimedia and Medical Databases"* Nat. Inst. of Standards and Technology (NIST), Gaithersburg, MD, September 26, 1994.
23. *"Beyond Uniformity and Independence: Analysis of R-trees Using the Concept of Fractal Dimension"*, IBM Almaden Research Center, San Jose, CA, Oct. 18, 1994.
24. Panel member: *"Information Filtering and Retrieval: Overview, Issues and Directions"* 26th Annual Conference of the IEEE Engineering in Medicine and Biology Society, Baltimore, MD, November 3-6, 1994.
25. *"Indexing Multimedia Data"* AT&T-GIS (TeraData), El Segundo, CA, February 14, 1995.
26. Panel member: *"Document Repositories: Databases or Information Retrieval Systems - Are We Reinventing the Wheel?"* Int. Conf. on Data Engineering, Taipei, Taiwan, March 6-10, 1995.
27. *"Indexing Multimedia Data"*, Rutgers University, NJ, April 27, 1995.
28. *"Indexing Multimedia Data"*, Columbia University, NY, June 2, 1995.
29. *"Indexing Multimedia Data"*, AT&T Bell Laboratories, Murray Hill, NJ, June 13, 1995.
30. *"Indexing Multimedia Data"*, Brooklyn Polytechnic University, Brooklyn, NY, November 6, 1995.
31. *"Parallel R-trees"*, AT&T-GIS (TeraData), El Segundo, CA, Nov. 16, 1995.
32. *"Indexing Multimedia Databases"*, PRC Inc., McLean VA, Jan. 16, 1996.
33. *"Estimating the Selectivity of Spatial Queries Using the 'Correlation' Fractal Dimension"*, University of Toronto, Canada, June 7, 1996.
34. *"Fast Searching by Content in Multimedia and Medical Image Databases"* National Library Medicine, Bethesda, MD, June 24, 1996.
35. *"Retrieval of Video by Content"* Matsushita Information Technology Laboratory, Princeton NJ, August 30, 1996.
36. *"Indexing Medical and Multimedia Databases"* Carnegie Mellon University, Pittsburgh PA, February 27, 1997.
37. *"Indexing Multimedia Databases"* The George Washington University, Washington DC, March 5, 1997.
38. *"Indexing Multimedia Databases"* ACM-UMCP chapter lecture series, April 10, 1997.
39. *"Applications, Requirements, and Databases Tools for Massive Data Mining"* IBM Yorktown Heights, Sept. 12, 1997.
40. *"Applications, Requirements, and Databases Tools for Massive Data Mining"* University of Pittsburgh, Oct. 17, 1997.
41. *"Overlay striping and optimal parallel I/O for modern applications"* Systems Design and Implementation (SDIS) seminar series, Carnegie Mellon Univ., Oct. 9, 1997.
42. *"Applications, Requirements and Database Tools for Massive Data Mining"* Center for Automated Learning and Discovery (CALD), Carnegie Mellon Univ., Oct. 24, 1997.
43. *"Applications, Requirements and Database Tools for Massive Data Mining"* CASCON'97 Data mining workshop, Toronto, Canada, Nov. 11, 1997.

44. *"Applications, Requirements and Database Tools for Massive Data Mining"* Case Western Reserve University, Cleveland, OH, March 25, 1998.
45. *"Indexing and Data Mining in Traditional and Multimedia Databases"* University of Washington, Seattle, June 8, 1998.
46. *"Indexing and Data Mining in Traditional and Multimedia Databases"* Microsoft Corporation, Redmond, WA, June 9, 1998.
47. *"Indexing and Data Mining in Traditional and Multimedia Databases"*, VASC seminars, Robotics Institute, CMU, Nov. 1998.
48. *"Data bases for fun and profit"*, Freshman Immigration Course, CMU, Sept. 28, 1999.
49. *"Fractals and power-laws for database applications"* Univ. of Salerno, Italy, Oct. 6, 1999.
50. *"Indexing and Data Mining in Traditional and Multimedia Databases"*, Dartmouth Univ., Feb. 2000.
51. *"Indexing and Mining Multimedia Databases"*, U.C. Riverside, March 3, 2000.
52. *"Indexing and Mining Multimedia Databases"* Invited talk, Internet Archive Colloquim, San Francisco, March 8, 2000.
53. *"Internet topology, data mining and power laws"* HP Labs, Palo Alto, June 2000.
54. *"Searching, Data Mining and Visualization of Multimedia Data"* Invited talk, Visual Databases VDB5, Fukuoka, Japan, May 2000.
55. *"Multimedia Information Retrieval"* Keynote talk, COMLEX 2000, Univ. of Patras, Greece, Sept. 2000.
56. *"Massive dimensionality: issues and solutions"* Plenary talk, NSF-IDM workshop, Roanoke, VA, Oct. 2000.
57. *"Searching, Data Mining and Visualization in Multimedia Databases"* Invited workshop speaker, DaimlerChrysler, Ulm, Germany, Dec. 2000.
58. *"Data Mining Using Fractals"* IBM Almaden, August 30, 2001.
59. *"The "DGX" Distribution for Mining Massive, Skewed Data"* HP Labs, August 31, 2001.
60. *"Spatio-temporal Data Mining Using Fractals"* IBM Hawthorne, Oct. 26, 2001.
61. *"Data Mining for Massive Graphs"* Invited talk in "VWSim" (Virtual Worlds and Simulation Conference), San Antonio, January 27-31, 2002.
62. *"Modeling skewed distributions and bursty traffic"* Microsoft Research, Redmont, Aug. 7, 2002.
63. *Stream and Graph Mining* INTEL Research Lab at Berkeley, March 2004.
64. *Stream and Graph Mining* USC, April 2004.
65. *Sensor and Graph Mining*, Nokia Research Center, Helsinki Finland, Aug. 2004.
66. *Next Generation Data Mining Tools* ETH Zurich, Switzerland, Sept. 2004
67. *Data Mining Using Fractals and Power Laws* Univ. of Sao Paulo at Sao Carlos, Sao Carlos, Brazil,
68. *Graph Mining Tools* Yahoo Research, Sunnyvale, CA, Nov. 2005
69. *Data Mining Using Fractals and Power Laws* Kent State University, OH, Jan. 2007.
70. *Graph Mining* Univ. of Michigan, Ann Arbor, April 2007.
71. *Graph Mining: Laws, Generators and Tools* Georgia Tech, Atlanta, Feb. 2008.

## TUTORIALS

1. *Indexing Multimedia Databases* Int. Conf. on Very Large Data Bases (VLDB), Santiago, Chile, Sept. 1994
2. *Indexing Multimedia Databases* ACM Multimedia Conference, San Francisco, CA, Oct. 1994.
3. *Indexing Multimedia Databases*, Int. Conf. on Date Engineering (ICDE), Taipei, Taiwan, March 1995.

4. *Indexing Multimedia Databases* ACM SIGMOD Conference, San Jose CA, May 1995.
5. *Indexing Multimedia Databases*, CIKM conference, Baltimore MD, Nov. 1995.
6. *Indexing Multimedia Databases*, EDBT Conference, Avignon, France, March 26, 1996.
7. *Indexing and Data Mining in Traditional and Multimedia Databases*, IEEE Multimedia Systems '99 (ICMCS'99), Florence Italy, June 7-11, 1999.
8. *Next generation data mining tools, using SVD and fractals*, ICDE 2001, Heidelberg, Germany, April 2-6 2001.
9. *Data Mining the Internet*, with Michalis Faloutsos, SIGCOMM 2002, Pittsburgh, PA, August 2002.
10. *Sensor data mining*, VLDB 2002, Hong Kong, August 2002.
11. *Data Mining the Internet*, with Michalis Faloutsos, INFOCOM, San Francisco, CA, March 31, 2003.
12. *Internet Research meets Data Mining: Current Knowledge and New Tools*, with Michalis Faloutsos, SIGMETRICS 2003, San Diego, CA, June 10-14, 2003.
13. *Mining Time Series Data*, ICML 2003, Washington DC, Aug. 21, 2003
14. *Stream and Sensor Data Mining*, EDBT, Heraklion, Greece, March 2004
15. *Indexing and Mining Streams*, SIGMOD 2004, Paris France, June 2004.
16. *Graph Structures in Data Mining*, ACM KDD 2004, with Soumen Chakrabarti, Seattle, WA.
17. *Sensor Data Mining: Similarity Search and Pattern Analysis*, CIKM 2004 (Washington, DC), Nov. 2004.
18. *Research Issues in Protein Location Image Databases* (with Bob Murphy), SIGMOD 2005, Baltimore, MD, June 2005.
19. *Mining Time Series Data*, SBBD 2005 (Uberlandia, MG, Brazil) Oct. 3, 2005.
20. *Sensor Mining at Work: Principles and a Water Quality Case-Study* (with Jeanne VanBriesen), KDD 2006, Philadelphia, PA, August 2006.
21. *Mining Large Graphs and Streams Using Matrix and Tensor Tools* (with Tamara Kolda and Jimeng Sun) SDM 2007, Minneapolis, MN, USA, April 2007.
22. *Mining Large Graphs and Streams Using Matrix and Tensor Tools* (with Tamara Kolda and Jimeng Sun) SIGMOD 2007, Beijing, China, June 2007.
23. *Mining Large Graphs and Streams Using Matrix and Tensor Tools* (with Tamara Kolda and Jimeng Sun). ICML 2007, Cornvallis, OR, USA, June 20, 2007.
24. *Mining Large Graphs and Streams Using Matrix and Tensor Tools* (with Tamara Kolda and Jimeng Sun). KDD 2007, San Jose, August 12-15, 2007.
25. *Database Techniques with Motion Capture* (with Jessica Hodgins and Nancy Pollard) SIGGRAPH 2007, San Diego CA, USA, Aug 5-9 2007.
26. *Mining Large Graphs: Laws and tools* (with Jure Leskovec). ECML/PKDD, Warsaw, Poland, Sept. 21 2007
27. *Graph Mining Techniques for Social Media Analysis* Mary McGlohon and Christos Faloutsos, ICWSM, Seattle, WA, March 30 - April 2, 2008.
28. *Tools for large networks: Structure and difussion* (with Jure Leskovec). Full day tutorial, WWW, Beijing, China, April 2008.
29. *Large Graph Mining: Patterns, Tools and Case Studies* (with Hanghang Tong), CIKM, Napa Valley, CA, USA, Oct. 2008.
30. *Large Graph Mining: Patterns, Tools and Case Studies* (with Hanghang Tong), ICDE, Shanghai, China, April. 2009.
31. *Large Graph Mining* (with Charalampos (Babis) Tsourakakis and Gary Miller), KDD, Paris France, June 2009.

## GRANTS

1. IBM FULCRUM project grant, round II (1986-1988). 2 IBM PC AT's, fully equipped ( $\approx$  \$10,000). The project is to implement a full-text retrieval system, using a novel method, called "signature files".
2. NSF Grant (ID: DCR-8616833), 7/87 to 12/89. Title: "*Signature File Methods for Text Data Bases*". Amount: \$102,176.
3. NSF REU (Research Experience for Undergraduates) grant (IRI-8844914), amendment to the previous NSF grant DCR-8616833. Amount: \$3,880.
4. Maryland Industrial Partnerships (MIPS) grant, 1/88 to 6/88. Title: "*Data and Document Interchange in Machine Readable Form*" Amount: \$30,241.
5. NSF Grant (ID: IRI-8719458), 7/88-7/91 Title: "*High Performance Engineering Information Systems*". Principal Investigator: N. Roussopoulos. Co-Principal Investigators: T. Sellis, L. Mark, C. Faloutsos. Amount: \$391,071.
6. AFOSR Grant (ID: AFOSR-89-0303), 4/89-4/92 Title: "*Design Issues for High Performance Engineering Information Systems*" Principal Investigator: N. Roussopoulos. Co-Principal Investigators: T. Sellis, L. Mark, C. Faloutsos. Amount: \$405,000.
7. NSF REU (Research Experience for Undergraduates) grant (IRI-8943224), second amendment to the NSF grant DCR-8616833. Amount: \$3,998.
8. NSF CISE grant (IRI-8944635), third amendment to the NSF grant DCR-8616833. Amount: \$12,914. The Department provides \$14,947 as matching funds.
9. Department of Commerce (Bureau of Census) Joint Statistical Agreement (JSA 91-9), 2/1/91-2/1/92. Title: "*Spatial Orders for Census and Sampling Applications*". Amount: \$15,000. The Department provides \$6,143 as matching funds.
10. EMPRESS Software Inc., donation of software and 1 year maintenance contract, 4/91. Amount: \$23,610.
11. Thinking Machines Inc., donation of software and 2 years maintenance contract, 1/92. Amount: \$130,000.
12. NSF-ESPRIT grant (IRI-9205273), 6/93-6/96. Title: "*Multimedia Information Retrieval Systems*" Amount: \$30,000.
13. Illustra Information Technologies Inc., Engines for Innovation Research Grant, 10/94. Title: "*Database Support for Genomic and Medical Applications*" Principal Investigators: Michael Franklin and Christos Faloutsos. Amount: Database Server Software, Training and Maintenance (dollar value: to be determined).
14. NSF grant (IRI-9625428), 8/1/96-7/31/99 Title: "*Fast Searching of Multimedia Objects by Content*" Amount: \$305,837.
15. IBM-SUR grant, 1996-1997 Title "*Studies in Multimedia Data Acquisition, Searching and Representation*" PIs: Gary Marchionini and Christos Faloutsos Equipment grant.
16. Maryland Procurement, 9/96-9/99 Title: "*Document Image, Video and Natural Language Processing*" PI: David Doermann and Amy Weinberger Co-PIs/Senior personnel: Christos Faloutsos and Bonnie Dorr Amount: (est.) \$575K
17. NSF IIS, 9813354 6/1/98-11/30/98 Title: "*Workshop On Automated Learning And Discovery*" PIs: Sebastian Thrun, Tom Mitchell, Christos Faloutsos, Larry A. Wasserman. \$19,545.
18. NSF KDI, DMS-9873442, 10/15/1998-9/30/2001. Title "*KDI: New Algorithms, Architectures and Science for Data Mining of Massive Astrophysics Sky Surveys.*" PIs: Andrew W. Moore, Robert C. Nichol; coPIs: Christos Faloutsos, Peter L. Spirtes, Larry A. Wasserman. \$1,600,000.
19. INTEL equipment grant, 1/1999. 3 Pentium machines with monitors. Total list price: \$21,675.
20. NEC gift, 12/1998. Title: "*Multi-Dimensional Indexing for Information Warehouse*". Amount: \$10,000.

21. NSF, number IIS-98-17496. Title: *"Informedia-II: Integrated Video Information Extraction and Synthesis for Adaptive Presentation and Summarization from Distributed Libraries"*. 5/1/99-04/30/03 PI: Howard Wactlar; Senior personnel: Michael Christel, Christos Faloutsos, Alex Hauptmann, Takeo Kanade. Amount: \$4,000,000.
22. NSF, number IIS-9910606 Title *SGER: Fractals for Spatial and Temporal Databases* PI: Christos Faloutsos. 9/15/1999-8/31/2001 Amount: \$100,000.
23. DARPA Title *"CONSTELLATION: A Scalable Metrology to Support Theory and Practice of Anomalous-Event Detection"* 8/1/1999 - 7/31/2002. PI: Roy Maxion, Senior personnel: David Banks, Jeffery Hansen, Christos Faloutsos, Karl Levitt, Tom Mitchell, Daniel Siewiorek. Amount: \$1,985,858.
24. NSF, number IIS-9988876. Title: *CNPq: IMiMD-Indexing and Data Mining in Multimedia Databases*. PI: Christos Faloutsos. Starting: 9/15/2000, for 3 years. Amount: \$200,000.
25. DARPA, contract number N66001-00-1-8936. Title: *Analysis and Simulation of the Internet Topology and its Fault-Tolerance* PI: Michalis Faloutsos. Starting: 7/2000, for 3 years. Subcontractor: Christos Faloutsos (CMU)
26. NSF, number IIS-0083148 Title: *Collaborative Research: Data Mining Meets I/O Performance Evaluation: Advanced Statistical Tools for Analyzing Bursty Traffic* PIs: Christos Faloutsos, Ngai Hang Chan, Tara Madhyastha. Amount for CMU: \$420,000. Starting: 9/1/2001, for 3 years.
27. NSF, number IIS-0113089. Title: *A Knowledge Discovery Framework for Civil Infrastructure Contexts* PI: James H. Garrett. Co-PIs: Christos Faloutsos, Sue McNeil. Starting: 2/1/2001, for 3 years. Amount: \$241,263.
28. NLM, Grant number 2 R44 LM06520-02A1 Title: *A Bayesian Textual and Multimedia Information Retrieval Engine* PI: Giovanni Marchisio (Insightful). Duration: 9/30/2001-2/29/2003. Amount: \$749,224. (CMU portion: \$8,000).
29. NSF IIS-0209107 Title: *Collaborative Research: NetMine: Finding Patterns in Network Data* PIs: Christos Faloutsos (CMU); Michalis Faloutsos (UCR) Duration: 9/1/2002-8/31/2005. Amount: \$240,000 (CMU portion: \$120,000).
30. NSF, IIS-0205224 Title: *Providing Intuitive Access to Human Motion Databases* PIs: Jessica Hodgins, Amy Bruckman, Christos Faloutsos, Nancy Pollard, Randy Pausch Duration: 9/1/2002-8/31/2004. Amount: \$510,000.
31. Intel Corporation, Equipment grant Title: *Sensor Network Data Mining* PI: Christos Faloutsos Date: Feb. 2003. Amount: \$52,910.
32. PITA/ICES Title: *Automatic Mining on Sensor Data* PIs: Christos Faloutsos, Phil Gibbons Duration: 2003-2004 Amount: \$39,079
33. NSF, BES-0329549. Title: *SENSORS: Placement and operation of an environmental sensor network to facilitate decision making regarding drinking water quality and security* PI: Jeanne VanBriessen Co-PIs: Anastassia Ailamaki, Paul Fischbeck, Christos Faloutsos and Mitchell Small. Duration: 09/01/03-8/31/06. Amount: \$958,000.00
34. NSF/INT/EAP 03-18547 Title: *Semantic Integration of Stream Data: A Data Mining-based Approach* PI: Christos Faloutsos, Phil Gibbons, Natassa Ailamaki. Duration: Sept 1, 2003 - Aug 31, 2005. Amount: \$15,780
35. NSF ITR 03-31697 (large ITR) *ITR: Next Generation Bio-Molecular Imaging and Information Discovery* PI: B. Manjunath et al (UCSB); Robert Murphy et al. (CMU) (C. Faloutsos: Senior Personell) Amount: \$3,869,943 Duration: Oct. 1 2003 - Sept. 30, 2008.
36. NSF ITR (medium ITR) 03-26322 *ITR Collaborative Research: Indexing, Retrieval, and Use of Large Motion Databases* PIs: Christos Faloutsos, Jessica Hodgins, Amy Bruckman, Nancy Pollard, Randy Pausch Duration: 3/15/2004 - 2/28/2006. Amount: \$706,000.
37. PITA/ICES Title: *Tools for Mining Large Graphs* PI: Christos Faloutsos Duration: 10/1/2004 - 12/31/2005. Amount: \$62,243.

38. HP equipment donation *ProLiant DL585R01 server*, Four 2.8GHz Opteron processors, 32Gb memory, 1.4Tb disk. Amount: \$49,908. Date: Jan. 30, 2006.
39. PITA/ICES Title: *Distributed Mining in Co-evolving Streaming Sensor Data* PI: Christos Faloutsos Duration: 9/2005-9/2006 Amount: \$64K
40. NSF, IIS-0534205 Title: *CISE/IIS: Finding Patterns and Anomalies in Large Time-Evolving Graphs* PI: Christos Faloutsos Duration: 4/15/2006-3/31/2009 Amount: \$337,590.
41. IBM Faculty Award, 2006. PI: Christos Faloutsos. Amount: \$30,000.
42. Lawrence Livermore National Laboratory (LLNL), Contract No. B526511. Title: *Prediction on Time-Evolving Complex Networks* Duration: 09/01/06 - 09/30/07 Amount: \$156,015
43. Yahoo! Research Alliance gift Title: *Analysis and Mining of the Query and Answer System of Yahoo* Duration: 2006-2007. Amount: \$75,000.
44. PITA/ICES Title: *Influence Propagation in Large Blog Graphs* PI: Christos Faloutsos Duration: Sept. 2006 - May 2008. Amount: \$52,489.
45. NSF Grant No. CNS-0721736 "Collaborative Research: NeTS-NBD: RIDR: Towards Robust Inter-domain Internet Routing: Measurements, Models, and Deployable Tools" PI: Faloutsos Duration: Aug. 2007 - July 2010. Amount: \$245,000.
46. IBM Faculty Award, 2007. PI: Christos Faloutsos. Amount: \$30,000.
47. NSF Grant No. IIS-0705359 *III-COR: Collaborative Research: Mining Biomedical and Network Data Using Tensors* PI: Faloutsos (co-PI: Vassileios Megalooikonomou, Temple University) Duration: 09/15/07- 08/31/10. Amount: \$307,985
48. NSF Grant No. DBI-0640543 *Indexing, Mining and Modeling Spatio-Temporal Patterns of Gene Expressions* Eric Xing (PI) and Christos Faloutsos (co-PI). Duration: 08/15/2007 - 07/31/2010. Amount: \$1,331,995.
49. Gift from SPRINT (Dr. Jean Bolot). Starting date: 2007. Amount: \$52,000.
50. Lawrence Livermore National Laboratory (LLNL), Contract No. B573265. Title: *Mining Large Time-Evolving Graphs* Duration: 03/01/07 - 09/30/08 Amount: \$90,387
51. NSF Grant No. IIS0808661 *III-CXT: Collaborative Research: Interactive and Intelligent Searching of Biological Images by Query and Network Navigation with Learning Capabilities* (co-PIs: Eamonn Keogh, James Baldwin, Paul De Ley, Michalis Faloutsos, Amit K. Roy Chowdhury, UC Riverside; Eyuaem B. Abebe, Elizabeth City State Univ.). Duration: 8/1/2008-7/30/2011. CMU Amount \$149,399.
52. Lawrence Livermore National Laboratory (LLNL), Contract No. B579447 Title: *Mining Large Time-Evolving Graphs* Duration: 12/02/2008 - 09/30/2009 Amount: \$50,000.
53. IBM Faculty Award, 2008 PI: Christos Faloutsos. Amount: \$20,000.
54. Lawrence Livermore National Laboratory (LLNL), Contract No. B580840 Title: *Trend and Anomaly Detection in Network Traffic Data* Duration: 2/1/2009-09/30-2009 Amount: \$100,000.

## FELLOWSHIPS AND AWARDS

1. Graduate Research Board Summer Research Award 1987: \$4,000.
2. 1989 Presidential Young Investigator Award (PYI) - NSF IRI-8958546. Title: *Access methods for large multimedia databases* \$125,000 for 5 years; up to \$500,00 with matching funds.
3. 1998-2001: Litton Fellow, Computer Science Department, Carnegie Mellon University. Amount: \$10,000 per year.
4. 2006: *Research Contribution Award*, in the Int. Conference on Data Mining (ICDM), Hong Kong, China, December 2006.

**BEST PAPER AWARDS**

1. Award for *Best paper: Integration with theory*, in ACM SIGMOD 1994. (Christos Faloutsos, M. Ranganathan and Yannis Manolopoulos *Fast Subsequence Matching in Time-Series Databases* Proc. ACM SIGMOD, Minneapolis MN, May 25-27, 1994)
2. *1997 VLDB 10 Year Ago Paper Award* (Timos Sellis, Nick Roussopoulos and Christos Faloutsos *"The R+-Tree: A Dynamic Index for Multi-Dimensional Objects"*, VLDB 1987, pp. 507-518)
3. *Best Paper Runner-Up Award*, in KDD 2001 (Zhiqiang Bi, Christos Faloutsos and Flip Korn *The "DGX" Distribution for Mining Massive, Skewed Data* KDD 2001, San Francisco, CA, August 2001).
4. *Best student paper Award*, in Performance 2002 (Mengzhi Wang, Anastassia (Natassa) Ailamaki and Christos Faloutsos *Capturing the spatio-temporal behavior of real traffic data* IFIP Int. Symp. on Computer Performance Modeling, Measurement and Evaluation, Rome, Italy, Sept. 2002)
5. *Best student paper Award* Jia-Yu Pan, Christos Faloutsos, Masafumi Hamamoto and Hiroyuki Kitagawa *AutoSplit: Fast and Scalable Discovery of Hidden Variables in Stream and Multimedia Databases* PAKDD, Sidney, Australia, May 2004.
6. *Best research paper Award*: Jure Leskovec, Jon Kleinberg and Christos Faloutsos *Graphs over Time: Densification Laws, Shrinking Diameters and Possible Explanations* KDD 2005, Chicago, IL, Aug. 2005
7. One of five '*best student paper*' awards: Arnab Bhattacharya, Vebjorn Ljosa, Jia-Yu Pan, Mark Verardo, Hyunjeong Yang, Christos Faloutsos, and Ambuj Singh, *ViVo: Visual Vocabulary Construction for Mining Biomedical Images* Fifth IEEE International Conference on Data Mining, New Orleans, Louisiana, U.S.A., November 27-30, 2005.
8. *Best paper award*: Steven W. Schlosser, Jiri Schindler, Stratos Papadomanolakis, Minglong Shao, Anastassia Ailamaki, Christos Faloutsos, and Gregory R. Ganger *On Multidimensional Data and Modern Disks* FAST 2005.
9. *Best Research paper award*: Hanghang Tong, Christos Faloutsos, and Jia-Yu Pan *Fast Random Walk with Restart and Its Applications* ICDM 2006, Hong Kong.
10. *Best Research Paper award*: Jimeng Sun, Yinglian Xie, Hui Zhang and Christos Faloutsos *Less is More: Compact Matrix Decomposition for Large Sparse Graphs* SDM'07, Minneapolis, MN, USA, April 26-28, 2007.
11. *Best Student Paper Award*: Jure Leskovec, Andreas Krause, Carlos Guestrin, Christos Faloutsos, Jeanne VanBriesen and Natalie Glance, *Cost-effective Outbreak Detection in Networks*. ACM SIGKDD Int. Conf. on Knowledge Discovery and Data Mining (ACM KDD), San Jose, CA, USA, August 2007.
12. *Best Paper Award*: Hanghang Tong, Spiros Papadimitriou, Philip S. Yu and Christos Faloutsos, *Proximity Tracking on Time-Evolving Bipartite Graphs* SDM 2008, Atlanta, GA, USA, April 2008.
13. *Best Research Paper Award*: Krause, A., Leskovec, J., Guestrin, C., VanBriesen, J., Faloutsos, C. (2008) *Efficient Sensor Placement Optimization for Securing Large Water Distribution Networks* ASCE Journal of Water Resources Planning and Management, 134(6): 516-526.

**COURSES TAUGHT**

At UMD:

Spring '86	CMSC 420: Data Structures	required	(40)
Fall '86	CMSC 420: Data Structures	required	(40)
Spring '87	CMSC 828E: File Structures	seminar	(9)
Fall '87	CMSC 424: Database Design (ITV)	required	(40)
Spring '88	CMSC 424: Database Design (ITV)	required	(33)
Fall '88	CMSC 828F: File Structures	seminar	(12)

Spring '89	CMSC 624: Database Mgmt. Sys. (ITV)	required	(25)
Fall '89	CMSC 112: Computer Science I	required	(110)
Spring '90	CMSC 424: Database Design	required	(21)
Fall '90	CMSC 828F: File Structures	seminar	(10)
Spring '91	CMSC 624 :Database Mgmt. Sys.	required	(23)
Fall '91	CMSC 828F :File Structures	seminar	(12)
Spring '92	CMSC 424 :Database Design	required	(18)
Fall '93	CMSC 424 :Database Design	required	(50)
Spring '94	CMSC 624 :Database Mgmt. Sys.	required	(43)
Fall '94	CMSC 424 :Database Design (ITV)	required	(42)
Spring '96	CMSC 724 :Database Mgmt. Sys.	required	(28)
Fall '96	CMSC 424 :Database Design	required	(49)
Spring '97	CMSC 724 :Database Mgmt. Sys.	required	(30)

At CMU:

Semester	Title	Units	Enrollm.	fac. eval - instr.	fac. eval - course
Fall '97	15-829: Adv. DB Applications	12	(7)		
Spring '98	15-499C: DB Applications	12	(30)	4.39	4.14
Fall '98	15-829: Adv. DB Applications	12	(5)	5.0	5.0
Spring '99	15-415A: DB Applications	12	(57)	4.37	4.16
Fall '99	15-829: Adv. DB Applications	12	(6)		
Spring '00	15-415A: DB Applications	12	(90)		
Fall '00	15-415A: DB Applications	12	(80)	4.05	4.03
Spring '01	15-826/10-603: Multimedia and Data Mining	12	(20)	4.87	4.75
Fall '01	15-415A: DB Applications	12	(78)	4.13	4.00
Spring '02	15-826/10-603: Multimedia and Data Mining	12	(28)		
Fall '02	15-415A: DB Applications	12	(70)		
Spring '03	15-721: DB Sys. and Impl.	12	(22)		
Fall '04	15-415: DB Applications	12	(40)		
Spring '05	15-826: Multimedia and Data Mining	12	(30)		
Fall '05	15-415: DB Applications	12	(35)		
Spring '06	15-826: Multimedia and Data Mining	12	(15)		
Fall '06	15-415: DB Applications	12	(30)		
Spring '07	15-826: Multimedia and Data Mining	12	(18)		
Fall '07	15-415: DB Applications	12	(35)		
Spring '08	15-826: Multimedia and Data Mining	12	(26)		

### TEACHING AWARDS

1. Award for Teaching Excellence (Honorable mention); Dept. of C.S., Univ. of Maryland, 1986-1987.
2. Award for Teaching Excellence; Dept. of C.S., Univ. of Maryland, 1991-1992.
3. Award for Teaching Excellence (Honorable mention); Dept. of C.S., Univ. of Maryland, 1995-1996.
4. Award for Teaching Excellence, Center of Teaching Excellence, Univ. of Maryland, May 1998.

### STUDENTS AND THESES DIRECTED

#### Ph.D. Advising

1. Ibrahim Kamel (graduated: Dec. 1994). Thesis title: *High Performance Spatial Indexing for Parallel I/O and Centralized Architectures*.
2. King-Ip (David) Lin (graduated: Dec. 1996). Thesis title: *Indexing Non-Traditional and Multimedia Databases*

3. Philip ("Flip") Korn (graduated: 1998) Title: *Indexing and Data Mining in Multimedia Databases*
4. Byoung-Kee Yi (grad.: May 2000). Title: *Similarity Searching in Time Sequence Databases.*
5. Leejay Wu (grad.: Summer '05).
6. Spiros Papadimitriou (grad.: Fall '05).
7. Deepay Chakrabarti (CALD - grad.: Summer '05).
8. Jia-Yu Tim Pan (co-advised with H. Wactlar - grad.: April '06).
9. Jimeng Sun (CSD - grad. 2007)
10. Jure Leskovec (MLD - grad.: 2008).
11. Shashank Pandit (CSD - on leave since 2007).
12. Hanghang Tong (MLD - exp. grad: 2009).
13. Mary McGlohon (MLD). Co-advisor: Alan Montgomery (CMU-Tepper).
14. Lei Li (CSD).
15. B. Aditya Prakash (CSD).
16. Fan Guo (CSD). Co-advisor: Eric Xing (CMU-MLD).
17. Leman Akoglu (CSD).
18. Polo Chau (MLD).
19. Charalampos Tsourakakis (MLD).

#### **Ph.D. Co-Advising**

1. Douglas Oard (grad.: July 96) Advisor: Nick DeClaris (UMCP-EE) Thesis title: *Information Retrieval and Filtering.*
2. Alberto Belussi (grad.: 1996) Advisor: Giuseppe Pelagatti (Polytecnico di Milano, Italy) Thesis title: *Analysis of Spatial Queries Using Fractals.*
3. Erik Riedel (grad.: Oct. 1999) Co-advisor: David Nagle (CMU-ECE) Thesis title: *Active Disks - Remote Execution for Network-Attached Storage.*

#### **M.S. Advising - CALD/MLD**

1. Zhiqiang Bi (grad.: May 2002)
2. Deepay Chakrabarti (grad.: May 2002)
3. Elena Eneva (grad.: May 2002)
4. Krishna Kumar (grad.: July 2003)
5. Yiping Zhan (grad.: June 2003)
6. Edoardo Airoldi (grad.: Aug. 2003)
7. Ping Chen (grad.: May 2006)

#### **M.S. Advising (thesis)**

1. Raphael Chan (Spring 1988). Title: *Text Access Methods for Optical and Large Magnetic Disks.*
2. Edward Lewis (Spring 1989). Title: *Animated Images for a Multimedia Database.*
3. Barry James (Spring 1992). Title: *Fast String Matching Algorithms.*
4. Zhiqiang Bi (Spring 2002). M.Sc. in CALD. Title: *DGX: Modeling Skewed Distributions.*
5. Deepay Chakrabarti (Spring 2002). M.Sc. in CALD. Title: *Nonlinear forecasting.*
6. Bin Zhang. M.Sc. in MLD

### **M.S. Advising (scholarly paper)**

1. Hatem Slim (Sleem) (Spring 1987). Title: *Multiattribute Hashing and Disk Allocation Methods*.
2. Dimitrios Metaxas (Spring 1988). Title: *Disk Allocation for Cartesian Product Files on Multiple-Disk Systems*.
3. Shari Roseman (Spring 1989). Title: *Fractals for Secondary Key Retrieval*.
4. Sze-Nam Hong (Spring 1990). Title: *Implementation of the Grid File Method*.
5. Georgios Panagopoulos (Spring 1992). Title: *Bit Sliced Signature Files for Very Large Databases on a Parallel Machine Architecture*
6. Michael Otterman (Spring 1992). Title: *Approximate Matching with High Dimensionality R-trees*
7. Sunil Paliwal (Spring 1992). Title: *Declustering using Q-nary Error Correcting Codes*
8. Pravin Bhagwat (Spring 1992). Title: *Declustering Using Fractals*
9. Robert A. Best (Summer 1992). Title: *Implementation of a High Dimensionality Indexing Method*.
10. Philip Quartararo (Fall 1993). Title: *Study of Hilbert Curves*.
11. Xuejun Tang (Spring 1994). Title: *A Report on Implementing Persistent R-trees*.
12. Wen Wang (Fall 1994). Title: *Implementation of Support Routines for the Deferred-Split R-tree*.
13. Yik Chuan Tan (Fall 1994). Title: *Nearest Neighbor Search in Deferred-Split R-trees*
14. James Aspinwall (Spring 1997). M.Sc. in Systems Engineering (ISR). Title: *SPRINT: An algorithm to obtain approximate values for n-gram similarity scoring*
15. Khaled Arisha (Summer 1997). Title: *X-TERPSI: An Image Indexing System Using Histograms, Wavelets and Shapes*

### **Undergraduate Honor's program advising**

1. Frank Andrasco (Fall 1991)
2. Hussain Karim (Fall 1991)
3. Xuehong (Cheryl) Yu (Spring 1997)

### **Undergraduate 386/498 classes**

Chia-Lun (Karen) Kuo; Hou-Yu (Alex) Su; Xuehong (Cheryl) Yu; Min-Jie Yu (Spring 1997)

### **Ph.D. committees**

1. Hyunchul Kang (res. proposal; final defense Fall 1987). Advisor: N. Roussopoulos.
2. Zheng Lin (res. proposal; final defense). Advisor: J. Minker.
3. Li Tong (res. proposal). Advisor: N. Roussopoulos.
4. Sergio Cardenas (res. proposal). Advisor: M. Zelkowitz.
5. Paul Vongsathorn (res. proposal). Advisor: S. Carson.
6. Jianhui Tian (res. proposal). Advisor: M. Zelkowitz.
7. Thomas Chiungtung Kao (res. proposal; final defense). Advisor: D. Mount.
8. Gary Benson (res. proposal). Advisor: A. Amir.
9. Brian Johnson (res. proposal). Advisor: B. Shneiderman.
10. Sanjeev Setia (res. proposal). Advisor: S. Tripathi.
11. Alan Saalfeld (res. proposal). Advisor: H. Samet.
12. Roberta J. Cochrane (final defense). Advisor: L. Mark.
13. Gary E. Benson (final defense). Advisor: A. Amir.
14. Raymond Ng (final defense). Advisor: V.S. Subramanian.

15. Helene Young-Myers (final defense, School of Management). Advisor: L. Raschid
16. Sarit Mukherjee (res. proposal, final defense). Advisor: S. Tripathi.
17. Kyuseok Shim (res. proposal, final defense). Advisor: T. Sellis.
18. Sedat Akyurek (res. proposal; final defense). Advisor: K. Salem.
19. Alex Delis (res. proposal; final defense). Advisor: N. Roussopoulos.
20. Sunil Arya (final defense). Advisor: D. Mount.
21. Ya-hui Chang (res. proposal). Advisors: L. Raschid and B. Dorr.
22. Chung-Min Chen (res. proposal and final defense). Advisor: N. Roussopoulos.
23. Debanjan Saha (res. proposal). Advisor: S. Tripathi
24. Pravin Bhagwat (res. proposal). Advisor: S. Tripathi
25. Yinong Chen (res. proposal in 94; final defense in 97). Advisor: J. Reggia.
26. Bongki Moon (res. proposal and final defense). Advisor: Joel Salz
27. Tung-Duong Tran-Luu (defense). Advisor: Nicholas DeClaris (EE)
28. Kasim Selcuk Candan (res. proposal in 96, defense in 97). Advisor: V.S. Subramanian.
29. Suleyman Cenk Sahinalp (defence). Advisor: Uzi Vishkin (EE).
30. Tamara Gibson Kolda (defense). Advisor: Dianne O'Leary
31. Fan-Tao Pu (res. proposal) Advisor: David Mount.
32. Konstantinos Stathatos (res. proposal, defense). Advisor: Nick Roussopoulos.
33. Eenjun Hwang (res. proposal, defense). Advisor: V.S. Subramanian
34. Vikrant Kobla (res. proposal). Advisor: A. Rosenfeld and D. Doermann
35. David Leslie Montgomery (res. proposal) Advisor: J. Reggia
36. Erik Riedel (res. proposal) Advisor: G. Gibson
37. Chen Lee (res. proposal, final defense) Advisor: D. Siewiorek.
38. Scott Davies (res. proposal, final defense) Advisor: A. Moore
39. Robert T. Olszewski (res. proposal, final defense) Advisor: R. Maxion
40. Rebecca Bari Buchheit (res. proposal, final defense, Civ. Eng.) Advisor: J. Garrett
41. Dushyanth Narayanan (res. prop., final defense) Advisor: M. Satyanarayanan.
42. Philip Lee (ADA presentation, Stat/CMU) Advisor: Ngai-Hang Chan.
43. Nabeel Koshak (res. proposal, final defense, Arch./CMU) Advisor: Ulrich Flemming.
44. Sanjay Rao (res. prop., defense) Advisor: Hui Zhang
45. Meel Velliste (res. prop., defense) Advisor: Bob Murphy (Biology/CMU)
46. Orna Raz (res. prop.; final defense) Advisor: Mary Shaw
47. Jun Gao (res. prop.; final defense) Advisor: Peter Steenkiste
48. Wing Ho (Howard) Leung (res. prop.; final defense) Advisor: Tsuhan Chen (ECE)
49. Kai Huang (res. prop.). Advisor: Robert Murphy (Biology)
50. Mengzhi Wang (res. prop., defense '05). Advisor: Natassa Ailamaki
51. Daniel Blandford (res. prop., defense). Advisor: Guy Blelloch
52. Brad Malin (res. prop.; defense March '06). Advisor: Latanya Sweeney
53. Francisco Pereira (res. prop.). Advisor: Tom Mitchell
54. Rong Yan (res. prop. 6/2005, def. 10/2006). Advisor: Alex Hauptmann
55. Paul Ogilvie (res. prop. 6/05). Advisor: Jamie Callan

56. Stratos Papadomanolakis (res. prop. 6/05; def.: 5/07). Advisor: Natassa Ailamaki.
57. Xiang Chen (def.: 8/26/05 - Murphy).
58. Xifeng Yan (res. prop. Oct. 2005, defense: July 2006). UIUC - Advisor: Jiawei Han.
59. Mohamed Sharaf (res. prop. Nov. 2005; def.: June 22, 2007). U. Pitt - Advisor: Panos Chrysanthis.
60. Michael Mesnier (res. prop. Nov. 2005, def. Nov. 2007). CMU/ECE - Advisor: Greg Ganger.
61. David McWherter (res. prop.: April 2006, def. Aug 2008)) CMU - Advisor: Mor Harchol-Balter.
62. John Strunk (res. prop.: Aug. 2006; def. April 2008) CMU/ECE - Advisor: Greg Ganger.
63. Yanjun Qi (res. prop.: Sept. 2006) CMU - Advisor: Ziv Bar-Joseph.
64. Kaustav Das (res. prop.: April 3, 2007, def.: March 2009) CMU - Advisor: Jeff Schneider.
65. Jie Lu (thesis: April 5, 2007) CMU - Advisor: Jamie Callan.
66. Einat Minkov (res. prop.: June 18, 2007, defense: Nov. 2008) CMU/LTI - Advisor: William Cohen.
67. Jun Yang (res. prop.: Nov. 20, 2007; def.: Dec. 2008) CMU - Advisor: Alex Hauptmann.
68. Qinglan Li (res. prop.: 3/31/2008) U. Pitt - Advisors: Chrysanthis and Labrinidis
69. Sandeep Pandey (defense: 4/4/2008) - CMU (Adv.: Olston)
70. Dash Debabrata (res. prop. 6/5/2008) - CMU (Adv.: Ailamaki)
71. Ajit P. Singh (res. prop. 6/16/2008, def.: 9/30/2009) - CMU (Adv.: Geoff Gordon)
72. Ippokratis Pandis (res. prop. Dec. 2008) - CMU (Adv.: Ailamaki)
73. Mayank Lahiri (res. prop. 3/12/2009) - UIC (Adv.: Tanya Berger-Wolf).
74. Nachiketa Sahoo (res. prop. 3/19/2009, thesis 9/4/2009) - CMU-Heinz (Adv.: Ramayya Krishnan).
75. Zhen Guo (res. prop. 4/16/2009) - SUNY Binghamton (Adv.: Zhongfei Zhang).
76. George Davis (res. prop. 9/14/2009) - CMU/COS (Adv.: Kathleen Carley).
77. Grace Hui Yang (res. prop. 10/9/2009) - CMU/LTI (Adv.: Jamie Callan).

#### **M.S. committees**

1. Maria Salazar (1986). Advisor: N. Roussopoulos.
2. Hyun Soon Kim (1987). Advisor: N. Roussopoulos.
3. Nicolas Economou (1988). Advisor: N. Roussopoulos.
4. Antony Stamenas (1989). Advisor: N. Roussopoulos.
5. Kannan Ramaswamy (1989). Advisor: N. Roussopoulos.
6. Pankaj Karnik (1989). Advisor: N. Roussopoulos.
7. Young Gyu Kang (1989). Advisor: N. Roussopoulos.
8. Joanne Pelkey (1990). Advisor: N. Roussopoulos.
9. Matthew Lydic (11/19/90). Advisor: T. Sellis.
10. Rodrigo Botafogo (11/19/90). Advisor: B. Shneiderman.
11. Maya Ramamurthy (4/23/91). Advisor: L. Mark.
12. William Joachim Weiland (4/24/91). Advisor: B. Shneiderman.
13. Charles J. Daniels IV (4/29/91). Advisor: A. Mahanti.
14. Dong He (4/24/92). Advisor: R. Furuta.
15. Misako Kamimura (6/15/93). Advisor: T. Sellis.
16. Vinit Jain (9/7/93). Advisor: B. Shneiderman.
17. Jack S. Hsu (4/22/97). Advisor: N. Roussopoulos.
18. Yu Zhong (5/15/00). Advisor: Michael Christel.

19. Yang Wang (8/2003). Advisor: Chenxi Wang (CMU/ECE).
20. Xinghao Pan (5/2009). Advisor: Priya Narasimhan (CMU/ECE).

## PROFESSIONAL SERVICE

### NAT. ACADEMY OF SCIENCE COMMITTEE

1. Committee Member, Workshop on Geospatial Information and Information Technology (CSTB-L-00-03-A) Sub-Unit: CSTB (Computer Science and Telecommunications Board), National Academy of Sciences, July 2001 - Jan. 2002.

### EDITORSHIPS AND ADVISORY BOARDS

1. Member of the Editorial Board of *IEEE Multimedia*, Nov. 1995 - Dec. 1998.
2. Member of the Advisory Board of *GeoInformatica* (by Kluwer Academic Publishers), since Jan. 1996.
3. Member of the Advisory Board of *Information Systems* (by Elsevier Science), May 1996.
4. Member of the Editorial Board of *Information Retrieval Journal* (Kluwer), February 1998-Dec. 2005.
5. Member of the Executive Committee of *ACM SIG-KDD*, 1999-2005.
6. Member of the Editorial Board of the book series on *Data Centric Systems and Applications (DCSA)*, Springer-Verlag, since March 2002.
7. Member of the Scientific Advisory Board of the Helsinki Institute for Information Technology (HIIT)
8. Associate Editor-in-Chief, *IEEE TKDE*, since April 2005.
9. Member of the Editorial Board of *ACM Trans. on Knowledge Discovery from Data*, since 2005.
10. Member of the Advisory Board, Lehigh University, CS Department, since 2006.

### CONFERENCE ORGANIZATION

1. Demonstrations Chair, *ACM SIGMOD Conference*, June 3-6, 1996, Montreal, Canada.
2. Vice Chair for the sub-committee on 'Multimedia Systems and Applications', *13th International Conference on Data Engineering (ICDE-97)*, Birmingham, U.K., April 7-11, 1997.
3. Program Committee Chair for the *ACM-SIGMOD* conference, Philadelphia, PA, 1999.
4. Program Committee co-Chair for the *ACM-SIGKDD* conference, Washington DC, 2003.
5. Tutorials co-chair, *VLDB*, Seoul, Korea, Sept. 12-15, 2006.
6. Best Paper Award chair, *KDD*, Las Vegas, Aug. 2008.
7. Member of *ICDM 2008* awards committee
8. Member of the *KDD 2009* Best Paper Awards committee, Paris, June 2009.

### PROGRAM COMMITTEE MEMBER

1. *IEEE Office Automation Symposium*, April 1987.
2. *ACM-SIGMOD conference on Management of Data*, Chicago, June 1-3 1988.
3. *Symposium on the Design and Implementation of Large Spatial Databases*, Santa Barbara, CA, July 17-19, 1989.
4. *COIS90 Conference on Office Information Systems*, Cambridge MA, April 25-27, 1990.
5. *ACM-SIGMOD conference on Management of Data*, Atlantic City, NJ, May 1990.
6. *International Conf. on Multimedia Information Systems*, Jan. 16-18, 1991.
7. *Tenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS)*, Boulder Colorado, May 29-31, 1991.
8. *Second Symposium on Large Spatial Databases*, Zurich, Switzerland, Aug. 28-30, 1991.
9. *1992 Workshop on Multimedia Information Systems*, Phoenix, Arizona, February 7-8, 1992.
10. *1992 Conference on Very Large Data Bases (VLDB)*, Vancouver, British Columbia, August 1992.
11. *Second International Conference on Parallel and Distributed Information Systems*, San Diego, California, January 20-22, 1993.
12. *ACM SIGMOD Conf.*, Minneapolis, MN, May 24-27, 1994.
13. *1994 Conference on Very Large Data Bases (VLDB)* Santiago, Chile, Sept. 12-15, 1994.
14. *Fourteenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS)*, San Jose, CA, May 22-24, 1995.

15. *The Second International Workshop on Next Generation Information Technologies and Systems (NGITS 95)*, Naharia, Israel, June 27-29, 1995.
16. *Fourth Int. Conference on Information and Knowledge Management (CIKM '95)*, Baltimore, MD, Nov. 29 - Dec. 2, 1995.
17. *12th International Conference on Data Engineering (ICDE 1996)*, New Orleans, LA, Feb. 26-March 1, 1996.
18. *Sixth International Conference on Database Theory (ICDT '97)*, Delphi, Greece, 1997.
19. *Fifteenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS)*, Montreal, Canada, May 1996.
20. *First IFCIS Int. Conf. on Cooperative Information Systems (CoopIS'96)*, Brussels, Belgium, June 19-21, 1996.
21. *Parallel and Distributed Information Systems (PDIS) Conference*, 1996.
22. *Fourth ACM Workshop on Advances in Geographic Information Systems (GIS)*, Rockville, MD, November 16-17 1996.
23. *ACM SIGMOD Conf.*, Tucson AZ, May 13-15 1997.
24. *2nd International CONTESSA Database Workshop on Constraint Databases and their applications (CDB'96)*, London, UK, December 16-17, 1996.
25. *5th International Symposium on Large Spatial Databases, (SSD'97)* Berlin, Germany, July 15-18 1997.
26. *1997 Conference on Very Large Data Bases (VLDB)*, Athens, Greece, August 1997.
27. *XVII International Conference of the Chilean CS Society (SCCC)*, Valparaiso, Chile, 12-14 November 1997.
28. *2nd International Conference on Visual Information Systems (VISUAL'97)* San Diego, CA, 15-17 December 1997.
29. *9th IEEE Int. Conf. on Tools with Artificial Intelligence (ICTAI'97)* Newport Beach, CA, Nov. 4-7, 1997
30. *ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS)*, Seattle, WA, 1998.
31. *EDBT 98* Valencia, Spain, March 1998.
32. Best Paper Award Committee Member, SIGMOD 1998 Seattle, WA, June 1998.
33. 9th Annual Conf. on Combinatorial Pattern Matching, Rutgers University, NJ, July 13-15, 1998.
34. Fourth Int. Conf. on Knowledge Discovery and Data Mining (KDD98) New York City, Aug. 27-31, 1998
35. International Conference on Data Engineering (ICDE'2000) San Diego, CA. Feb. 2000.
36. Member of the Scientific Committee, 7th Hellenic Conference on Informatics, August 1999, University of Ioannina, Greece
37. Tenth International Conference on Management of Data (COMAD 2000), Pune, India, December 2000.
38. Sixth Int. Conf. on Knowledge Discovery and Data Mining (KDD2000) Boston, MA.
39. Multimedia Information Systems (MIS'00) workshop Chicago, Oct. 2000.
40. Int. Conf. on Knowledge Discovery and Data Mining (KDD2001)
41. ACM SIGMOD 2001, Santa Barbara, CA, May 21-24, 2001.
42. 8th Panhellenic Conference on Informatics, Nicosia, Cyprus, Nov. 2001.
43. VLDB 2002, Hong Kong, China, Aug. 2002
44. SIGKDD 2002, July 23-26, Edmonton Alberta, Canada.
45. Best paper award committee, SIGMOD 2003 (San Diego, CA)
46. 9th Panhellenic Conference on Informatics, (PCI 2003), Thessaloniki, Greece, Nov. 21-23, 2003.
47. PAKDD 2004, Sydney, Australia, May 26-28, 2004.
48. SSDM (16th Int. Conf on Scientific and Statistical Database Management), Santorini, Greece, June 21-23, 2004.
49. KDD 2004, Seattle WA, Aug. 22-25, 2004.
50. PODS 2004, Paris, France.
51. VLDB 2005, Trodheim, Norway
52. KDD 2005, Chicago, IL

53. ICDE 2006, Atlanta, GA
54. SIGMOD 2006
55. KDD 2006 (Senior PC member)
56. HDMS 2006, Greece.
57. SIGMOD 2007, Beijing, China
58. KDD 2007, San Jose, CA, USA
59. SSDBM 2007, Banff, Alberta, Canada, July 2007
60. VLDB 2008, Auckland, New Zealand, August 25-28, 2008.
61. WWW 2008, Beijing, China, April 21-25, 2008.
62. KDD 2008, Chair of the best-paper award committee.
63. PKDD 2008, Antwerp, Belgium, Sept. 15-19, 2008.
64. Data Mining for Biomedical Informatics workshop (with SIAM-DM 2008)
65. WWW 2009
66. VLDB 2009, Lyon, France, 2009
67. SIGMOD 2010
68. WWW 2010
69. KDD 2010 (Senior PC member)

#### PROPOSAL AND PANEL REVIEWS

1. Referee for several NSF proposals (1985-present);
2. Referee for a proposal to the Australian Research Grants Committee (1987).
3. Referee for proposals to the Natural Sciences and Engineering Research Council (NSERC) of Canada (1989, 1997, 2009).
4. Member of NSF Initiation Awards Panel (twice).
5. Member of NSF Proposal Review Panel (5 times).
6. Member of a NASA proposal review panel (NASA NRA-89-OSSA-21, "Applied Information Systems Research").
7. Member of a NASA proposal review panel (NASA NRA-93-OSSA-09), Sept. 1993.
8. Member of NSF site visit teams for CISE infrastructure grants (1996; 1997).
9. Referee for a proposal to the Israel Science Foundation (1998).
10. Referee for an NIH grant proposal (1998).
11. Referee for an EPET-II grant proposal to the Greek Ministry of Science and Technology (1999).
12. Referee for a proposal to the *Canada Foundation for Innovation* (CFI, 2007).

#### JOURNAL REVIEWS

- *ACM Computing Surveys* (1987,1994,1995), *ACM SIGIR-Forum* (1994), *ACM Trans. on Computer Systems* (1992), *ACM Trans. on Database Systems* (1986, 1987, 1992 (twice), 1994 (twice), 1995, 1997, 1998, 2001 (twice) ), *ACM Trans. on Office Information Systems* (1987, 1988, twice in 1992, 1993, 1995), *Comm. of ACM* (1996) *Computers and Mathematics* (1995), *Distributed and Parallel Databases - An International Journal* (1993,1998), *IEEE Computer* (1987), (1995 twice), *IEEE Trans. on Computers* (1987, 1995), *IEEE Trans. on Circuits and Systems for Video Technology* (1997), *IEEE Trans. on Software Engineering* (1988, 1989, 1990, 1992), *IEEE Trans. on Knowledge and Data Engineering* (1989, 1990,1992, special issue on multimedia 1992, 1994, 1995 (3 times), 1996, 1998(twice) ), *IEEE Trans. on Information Theory* (1990), *IEEE Trans. on Image Processing* (1995), *IEEE Trans. on PAMI* (1990), *IEEE Trans. on Parallel and Distributed Systems (TPDS)* (1995), *IEEE Press* (1996), *IEEE Trans. in Parallel and Distributed Systems* (1993, 1994), *Information Processing Letters (IPL)* (1996), *Information Processing and Management* (1987), *Information Systems* (1991,1992, 1994 (4 times), 1995 (4 times), 1996, 1997 *Information Sciences* (1992), *Journal of the American Society for Information Science (JASIS)* (1988), *Journal of ACM* (1989), *Journal of Computer and System Sciences* (1990, 1995, 1999), *Pattern Recognition Letters* (1995), *The Computer Journal* (1995), *Theoretical Computer Science* (1995), *SIAM* (1996). *VLDB Journal* (1993 (twice), 1996, 1997, 1998(twice), 1999),

#### CONFERENCE REVIEWS

- *Entity-Relationship* (1986, 1987), *ACM SIGMETRICS* (1990), *VLDB* (1991), *IEEE Data Engineering* (1993), *ACM-SIGMOD* (1993-twice, 1996), *ACM-GIS96* workshop. *PODS* (1997-4 times) *SIGMOD*

(1998-3 times)

#### OTHERS

- External examiner for the Ph.D. dissertation of Mr. A.J. Kent (Royal Melbourne Institute of Technology, 1988).
- External examiner for the Ph.D. dissertation of Mr. Daniel Keim (Univ. of Munich, Germany, July 1997).
- External examiner for the Ph.D. dissertation of Mr. Kai Sang Leung (Univ. of British Columbia, Canada, Nov. 2002).
- External examiner for the Ph.D. dissertation of Mr. Periklis Andritsos (Univ. of Toronto, Canada, Sept. 2004).
- External examiner for the Ph.D. dissertation ('habilitation') of Mr. Peer Kroeger (Muenich Univ., Germany, Dec. 2008).
- Invited participant in the NSF sponsored *Uncertainty Management in Information Systems* (UMIS) Workshop, Catalina Island, CA, April 2-5, 1993.
- Invited participant in the NSF sponsored *Distributed Heterogeneous Knowledge Networks* workshop, Boulder, CO, May 8-9 1997.
- Invited speaker in the NSF sponsored *Mathematical Techinques to Mine Massive Data Sets* (M3D) workshop, Chicago, IL, July 12-15, 1997.
- Invited participant in the NSF sponsored workshop on *IR Tools*, Pittsburgh, PA, March 20-21, 1998.
- Invited participant and group discussion leader in the *1998 NSF Information and Data Management Workshop: Research Agenda for the 21st Century* Washington, D.C. March 29-31, 1998.
- Invited participant and group discussion leader in the *1999 NSF Information and Data Management Workshop*, Los Angeles, CA, March 1999.
- Invited participant and co-organizer in the *2000 NSF Information and Data Management Workshop*, Chicago, IL, March 2000.
- Referee for multiple promotion cases (5 in 2002, 5 in 2003, 7 in 2004, 4 in 2005, 7 in 2006, 14 in 2007)

#### UNIVERSITY SERVICES OTHER THAN TEACHING

- 1985- Member, Information Processing Field Committee
- 1985- Member, Information Processing Comprehensive Exam Committee
- 1985-86 Member, Graduate Admissions Committee
- 1986-87 Member, Colloquia Committee
- 1987 Chairman, Information Processing Comprehensive Exam Committee
- 1987-88 Member, Industrial Associates Program Committee
- 1988-89 Faculty advisor for ACM student chapter
- 1989 Member, CMSC112 Committee
- 1989-90 Member, Graduate Studies Committee (Pre-admissions advising)
- 10/1989 Member of an Ad Hoc Hearing Board on Academic Dishonesty.
- 3/1990 Member, CMSC 112 textbook Committee
- 1990-91 Member, Graduate Studies Committee (Pre-admissions advising)
- 1991 Member, Graduate Admissions Committee
- 1991-1992 Member, Graduate Studies Committee (Pre-admissions advising)
- 1992 Member, Graduate Admissions Committee (European, Latin and Middle East section)

- 1993-1994 TA orientation workshop; Undergraduate Studies committee member (evaluated undergraduate Departmental scholarships; acted as Liaison for the Dean's committee on Undergraduate Education; evaluated nominations for Teaching excellence awards); evaluated Greek applicants for graduate admissions; ISR Education Program Committee member (evaluated ISR fellowship applications; evaluated 150 applications for the 'Young Scholars' program).
- 1994 Undergraduate Studies Committee member; Lab Committee member; Academic Evaluations Committee member; ISR Education Program Committee member; ISR Facilities and Services Committee member.
- 1995 On leave
- 1996 Editor of the CS Annual Report; ISR Facilities and Services Committee member.
- 1996-97 Teaching Evaluation Committee member; Graduate Admissions.
- 1998-1999 (At CMU) Hiring committee in CSD; CALD advisory board; CALD summer course coordinator. Promotion committee for Profs Garth Gibson, Yiming Yang; one evaluation letter
- 1999-2000 Faculty Development Committee; head of SCS hiring sub-committee on DB/ML/IR; CALD hiring committee; CALD summer course co-organizer; One internal evaluation letter for promotion;
- 2000-2001 Head of promotion committee for Prof. Sebastian Thrun; Faculty Development Committee; member of CALD/Databases hiring sub-committee.
- 2001-2002 Guest lecture for "Andrew's Leap" (summer '01). Member of promotion committees of Todd Mowry, John Lafferty; two internal evaluation letters.
- 2002-2003 Guest Lecture for "Andrew's Leap" (summer '02). Internal evaluation letter. Recommendation letter for CMU non-SCS promotion. Member of SCS promotion committee. CSD Faculty Senator. Member of Systems hiring committee.
- 2003-2004 on sabbatical leave
- 2004-2005 CSD Faculty senator; nominated Ailamaki for Sloan; one internal promotion letter (CALD).
- 2005-2006 CSD Faculty senator; head of the reappointment committee for Chris Olston; Member of the Reappointments and Promotions Committee; 3 internal promotion/re-appointment letters (CALD, Stat, ECE).
- 2006-2007 Member of the promotion committee for Natassa Ailamaki; Member of the Reappointments and Promotions committee; Member of the PhD admissions committee; Head of the MLD hiring committee.
- 2007-2008 Member of the PhD admissions committee; Member of the promotion committee for Todd Mowry; 1 internal promotion letter; Member of the CSD hiring committee; Reviewer for the IBM-CMU Faculty awards proposals.
- 2008-2009 Member of the PhD admissions committee. Host for 2 faculty candidates. 2 internal SCS promotion letters
- 2009-2010 Organizer of the SCS Distinguished Lecture Series. 1 internal SCS promotion letter

#### **MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

- Member of Institute of Electrical and Electronic Engineers (IEEE),
- Member of Association for Computing Machinery (ACM),
- Member of the Technical Chamber of Greece (association of licensed engineers of Greece).