

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.

FELLOWSHIPS AND AWARDS

1. 1989 Presidential Young Investigator Award (PYI): \$125,000 for 5 years; up to \$500,000 with matching funds.

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.

PUBLICATIONS

REFEREED JOURNALS.

- J1. S. Christodoulakis and C. Faloutsos, *Design Considerations for a Message File Server*, IEEE Trans. on Software Engineering, SE-10, 2, pp. 201-210, March 1984.
- J2. C. Faloutsos and S. Christodoulakis, *Signature Files: An Access Method for Documents and its Analytical Performance Evaluation*, ACM Trans. on Office Information Systems (TOOIS), 2, 4, pp. 267-288, Oct. 1984.
- J3. C. Faloutsos, *Access Methods for Text*, ACM Computing Surveys, 17, 1, pp. 49-74, March 1985.

- J4. S. Christodoulakis and C. Faloutsos *A Multimedia Document Server*, IEEE Aerospace and Electronic Systems Magazine, 1, 11, November 1986, pp. 2-9.
- J5. S. Christodoulakis and C. Faloutsos, *Design and Performance Considerations for an Optical Disk Based Multimedia Object Server*, IEEE Computer Magazine, 19, 12, pp. 45-56, Dec. 1986.
- J6. C. Faloutsos and S. Christodoulakis, *Description and Performance Analysis of Signature File Methods*, ACM Trans. on Office Information Systems (TOOIS), 5, 3, pp. 237-257, July 1987.
- J7. C. Faloutsos and S. Christodoulakis, *Optimal Signature Extraction and Information Loss*, ACM Trans. on Database Systems (TODS), 12, 3, pp. 395-428, Sept. 1987.
- J8. N. Roussopoulos, C. Faloutsos and T. Sellis, *An Efficient Pictorial Database System for PSQL*, IEEE Trans. on Software Engineering (TSE), Vol. 14, No. 5, pp. 639-650, May 1988.
- J9. T. Sellis, N. Roussopoulos, L. Mark and C. Faloutsos, *Expert Database Systems: Efficient Support for Engineering Environments*, International Journal on Data and Knowledge Engineering, Vol. 3, No. 2, pp. 71-85, August 1988.
- J10. C. Faloutsos, *Gray Codes for Partial Match and Range Queries*, IEEE Trans. on Software Engineering (TSE), Vol. 14, No. 10, pp. 1381-1393, Oct. 1988.
- J11. C. Faloutsos *Signature Files: An Integrated Access Method for Text and Attributes, Suitable for Optical Disk Storage*, BIT, 28, 4, pp. 736-754, 1988.
- J12. C. Faloutsos and W. Rego, *Tri-cell: A Data Structure for Spatial Objects*, Information Systems, Vol. 14, No. 2, pp. 131-139, 1989.
- J13. C-C. Lin, L. Mark, T. Sellis and C. Faloutsos, *Performance Issues in the Binary Relationship Model*, Intern. Journal on Data and Knowledge Engineering, Vol. 4, pp. 195-221, 1989.
- J14. Y. Manolopoulos and C. Faloutsos *Analysis of the End of Block Wasted Space* BIT, vol. 30, pp. 620-630, 1990.
- J15. C. Faloutsos, R. Lee, C. Plaisant and B. Shneiderman *Incorporating String Search in a Hypertext System: User Interface and Signature File Design Issues* Hypermedia, Vol. 2, No. 3, pp. 183-200, 1990.
- J16. T. Sellis, N. Roussopoulos, L. Mark and C. Faloutsos, *An Architecture for High Performance Engineering Information Systems*, IEEE Trans. on Software Engineering (TSE), Vol. 17, No. 1, pp. 22-33, Jan. 1991.
- J17. C. Faloutsos and D. Metaxas *Disk Allocation Methods Using Error Correcting Codes* IEEE Trans. on Computers, Vol. 40, No. 8, pp. 907-914, Aug. 1991.
- J18. C. Faloutsos *Analytical Results on the Quadtree Decomposition of Arbitrary Rectangles* in Pattern Recognition Letters, 13, 1, pp. 31-40, Jan. 1992. Also available as UMIACS-TR-89-115, CS-TR-2354.
- J19. Z. Lin and C. Faloutsos *Frame Sliced Signature Files* IEEE Trans. on Knowledge and Data Engineering, 4,3, (June 1992).
- J20. Christos Faloutsos, Ron Barber, Myron Flickner, Jim Hafner, Wayne Niblack, Dragutin Petkovic and Will Equitz *Efficient and Effective Querying by Image Content* Journal of Intelligent Information Systems, 3, 3/4, July 1994, pp. 231-262.
- J21. King-Ip Lin, H.V. Jagadish and Christos Faloutsos *The TV-tree - An Index Structure for High-dimensional Data* VLDB Journal, 3, Oct. 1994, pp. 517-542.
- J22. Christos Faloutsos, Raymond Ng and Timos Sellis *Flexible and Adaptable Buffer Management Techniques for Database Management Systems* IEEE Trans. on Computers, 44, 4, April 1995, pp. 546-560.
- J23. Euripides G.M. Petrakis and Christos Faloutsos *Similarity Searching in Medical Image DataBases* IEEE Trans. on Knowledge and Data Engineering, 9, 3, May/June 1997, pp. 435-447.
- J24. Christos Faloutsos, H.V. Jagadish and Yannis Manolopoulos *Analysis of the n-dimensional quadtree decomposition for arbitrary hyper-rectangles* IEEE Trans. on Knowledge and Data Engineering, 9, 3, May/June 1997, pp. 373-383.
- J25. Christos Faloutsos and Ibrahim Kamel *Relaxing the Uniformity and Independence Assumptions, Using the Concept of Fractal Dimension* Journal of Computer and System Sciences (JCSS), 55, 2, October 1997, pp. 229-240.
- J26. Yannis Manolopoulos and Christos Faloutsos, *Experimenting with Pattern Matching Algorithms* Information Science, vol. 90, pp. 75-89, 1996.

- J27. Manish Arya, William Cody, Christos Faloutsos, Joel Richardson and Arthur Toga *A 3D Medical Image Database Management System* International Journal of Computerized Medical Imaging and Graphics, vol. 20, no. 4, pp. 269-284. Special issue on Medical Image Databases, Elsevier Science Ltd., April 1996.
- J28. Alberto Belussi and Christos Faloutsos *Spatial Join Selectivity Estimation Using Fractal Concepts* ACM Trans. on Information Systems (TOIS), vol. 16, no. 2, pp. 161-201, April 1998.
- J29. Anil Kumar, Vassilis J. Tsotras and Christos Faloutsos *Designing Access Methods for Bitemporal Databases* IEEE Trans. on Knowledge and Data Engineering (IEEE-TKDE), 10,1, pp. 1-20, Jan./Feb. 1998.
- J30. Peter Triantafillou and Christos Faloutsos *Optimal Striping for Parallel I/O in Modern Applications* Parallel Computing, vol. 24, no. 1, pp. 21-43, Feb. 1998.
- J31. Flip Korn, Nicholas Sidiropoulos, Christos Faloutsos Eliot Siegel, Zenon Protopapas *Fast and Effective Retrieval of Medical Tumor Shapes* IEEE Trans. on Knowledge and Data Engineering (IEEE-TKDE), vol. 10, no. 6, pp. 889-904, Nov./Dec. 1998.
- J32. Bongki Moon, H.V. Jagadish, Christos Faloutsos and Joel Salz *Analysis of the Clustering Properties of the Hilbert Space-Filling Curve* IEEE Trans. on Knowledge and Data Engineering (IEEE-TKDE), vol. 13, no. 1, pp. 124-141, Jan./Feb. 2001.
- J33. Euripides G.M. Petrakis, Christos Faloutsos, King-Ip (David) Lin *ImageMap: An Image Indexing Method Based on Spatial Similarity* IEEE Trans. on Knowledge and Data Engineering (IEEE-TKDE), 14, 5, Sept./Oct. 2002, pp. 979-987.
- J34. Flip Korn, Alexandros Labrinidis, Yannis Kotidis and Christos Faloutsos *Quantifiable Data Mining Using Ratio Rules* VLDB Journal, 8/3+4 (February 2000), pp. 254-266.
- J35. Guido Proietti and Christos Faloutsos *Analysis of Range Queries and Self-Spatial Join Queries on Real Region Datasets Stored Using and R-Tree* IEEE TKDE, 12, 5, Sept./Oct. 2000, pp 751-762.
- 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.
- J40. Erik Riedel, Christos Faloutsos, Garth A. Gibson, David Nagle *Active Disks for Large-Scale Data Processing* IEEE Computer 34, 6, June 2001, pp. 68-74.
- J41. Alan L. Montgomery and Christos Faloutsos *Identifying Web Browsing Trends and Patterns* IEEE Computer, 34, 7, July 2001, pp. 94-95.
- J42. Padhraic Smyth, Daryl Pregibon and Christos Faloutsos *Data-Driven Evolution of Data Mining Algorithms* CACM, 45, 8, August 2002, pp. 33-37.
- J43. Georgos Siganos, Michalis Faloutsos, Petros Faloutsos and Christos Faloutsos *Power-Laws and the AS-level Internet Topology* IEEE/ACM Transactions on Networking 11,4, Aug. 2003, pp. 514-524.
- J44. Krishna Kumaraswamy, Vasilis Megalooikonomou and Christos Faloutsos *Fractal Dimension and Vector Quantization* Information Processing Letters Vol 91/3, pp. 107-113, Aug. 2004.
- J45. Orna Raz, Rebecca Buchheit, Mary Shaw, Philip Koopman, and Christos Faloutsos *Detecting Semantic Anomalies in Truck Weigh-In-Motion Traffic Data Using Data Mining* Journal of Computing in Civil Engineering. 2004.
- J46. Angeline Wong, Leelay Wu, Phillip Gibbons and Christos Faloutsos *Fast Estimation of Fractal Dimension and Correlation Integral on Stream Data* Inf. Proc. Letters 93 (2005), pp. 91-97.
- J47. Christos Faloutsos and Vasileios Megalooikonomou *On Data Mining, Compression, and Kolmogorov Complexity* Data Mining and Knowledge Discovery, Tenth Anniversary Issue, 2007.
- J48. Yufei Tao, Christos Faloutsos and Dimitris Papadias *Spatial Query Estimation without the Local*

Uniformity Assumption GeoInformatica, 10,3, Sept. 2006, pp. 261-293.

- J49. Deepayan Chakrabarti and Christos Faloutsos *Graph mining: Laws, generators, and algorithms* ACM Computing Surveys (CSUR) 38,1, Article No. 2 (2006)
- J50. Jurij (Jure) Leskovec, Jon Kleinberg and Christos Faloutsos *Graph Evolution: Densification and Shrinking Diameters* ACM TKDD, to appear (2007)
- J51. 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.
- J52. Deepayan Chakrabarti, Yang Wang, Chenxi Wang, Jurij Leskovec and Christos Faloutsos *Epidemic Thresholds in Real Networks* ACM Trans. on Information and System Security (TISSEC), accepted, 2007.

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- C1. S. Christodoulakis and C. Faloutsos, *Performance Considerations in Message Files*, Proc. CMG XIII International Conf., San Diego, California, Dec. 14-17, 1982, pp. 262-268.
- C2. D. Tschritzis, S. Christodoulakis, P. Economopoulos, C. Faloutsos A. Lee, D. Lee, J. Vandebroek, and C. Woo, *A Multimedia Office Filing System*, Proc. 9th International Conf. on VLDB, Florence, Italy, Oct.-Nov. 1983.
- C3. C. Faloutsos, *Signature Files: Design and Performance Comparison of some Signature Extraction Methods*, ACM SIGMOD Conf., Austin, Texas, May 1985, pp. 63-82.
- C4. C. Faloutsos and S. Christodoulakis, *Design of a Signature File Method that Accounts for Non-Uniform Occurrence and Query Frequencies*, 11th International Conf. on VLDB, Stockholm, Sweden, Aug. 1985, pp. 165-170.
- C5. S. Christodoulakis and C. Faloutsos, *Design and Performance Considerations for a Multimedia Document Server*, First International Conf. on Supercomputing Systems, Florida, Dec. 1985, pp. 441-449.
- C6. C. Faloutsos, *Multiattribute Hashing Using Gray Codes*, ACM SIGMOD Conf., Washington D.C., May 1986, pp. 227-238.
- C7. C. Faloutsos, *Integrated access methods for messages using signature files*, IFIP Conference on Methods and Tools for Office systems, Pisa, Italy, October 1986, pp. 135-157.
- C8. C. Faloutsos, T. Sellis and N. Roussopoulos, *Analysis of Object Oriented Spatial Access Methods*, ACM SIGMOD Conf., San Francisco, May 1987, pp. 426-439.
- C9. T. Sellis, N. Roussopoulos and C. Faloutsos, *The R⁺-tree: A Dynamic Index for Multi-Dimensional Objects*, 12th International Conf. on VLDB, Brighton, England, Sept. 1987, pp. 507-518. (won "test of time" award, in 1997)
- C10. T. Sellis, N. Roussopoulos, L. Mark and C. Faloutsos, *High Performance Expert Database Systems: Efficient Support for Engineering Environments*, Conference on Data and Knowledge Systems for Engineering and Manufacturing, Hartford, Connecticut, Oct. 18-20, 1987.
- 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.
- C12. C. Faloutsos and D. Metaxas *Declustering Using Error Correcting Codes* Eighth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS), pp. 253-258, Philadelphia, Pennsylvania, March 29-31, 1989. Also available as UMIACS-TR-88-91 and CS-TR-2157
- C13. C. Faloutsos and S. Roseman *Fractals for Secondary Key Retrieval* Eighth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS), pp. 247-252, Philadelphia, Pennsylvania, March 29-31, 1989. Also available as UMIACS-TR-89-47 and CS-TR-2242
- C14. C. Faloutsos and Y. Rong *DOT: A Spatial Access Method Using Fractals* Int. Conference on Data Engineering (ICDE), pp. 152-159, Kobe, Japan, Apr. 1991. Also available as UMIACS-TR-89-31 and CS-TR-2214
- C15. R. Ng, C. Faloutsos and T. Sellis *Flexible Buffer Allocation Based on Marginal Gains* SIGMOD Conference, pp. 387-396, Denver, Colorado, May 29-31, 1991.
- C16. C. Faloutsos, R. Ng and T. Sellis *Predictive Load Control for Flexible Buffer Allocation* VLDB Conference, Barcelona, Spain, Sept. 3-6, 1991, pp. 265-274. Also available as UMIACS-

- TR-91-34 and CS-TR-2622.
- C17. C. Faloutsos and H.V. Jagadish *Hybrid Index Organizations for Text Databases* EDBT Conference, Vienna, Austria, March 23-27, 1992.
- C18. I. Kamel and C. Faloutsos *Parallel R-trees* ACM SIGMOD Conference, pp. 195-204 San Diego, California, June 1992.
- C19. C. Faloutsos and H. V. Jagadish *On B-tree Indices for Skewed Distributions* VLDB Conference, Vancouver, British Columbia, August 1992, pp. 363-374.
- C20. C. Faloutsos and P. Bhagwat *Declustering Using Fractals* PDIS 2 Conference, San Diego, CA, Jan. 20-22 1993, pp. 18-25.
- C21. Wayne Niblack, Ron Barber, Will Equitz, Myron Flickner, Eduardo Glasman, Dragutin Petkovic, Peter Yanker, Christos Faloutsos and Gabriel Taubin, *The QBIC Project: Querying Images By Content Using Color, Texture and Shape* SPIE 1993 Intl. Symposium on Electronic Imaging: Science and Technology, Conf. 1908, Storage and Retrieval for Image and Video Databases, Feb. 1993. Also available as IBM Research Report RJ 9203 (81511), Feb. 1, 1993, Computer Science.
- C22. Rakesh Agrawal, Christos Faloutsos and Arun Swami, *Efficient Similarity Search In Sequence Databases* FODO conference, Evanston, Illinois, Oct. 13-15, 1993.
- C23. Ibrahim Kamel and Christos Faloutsos *On Packing R-trees* Second Int. Conference on Information and Knowledge Management (CIKM), Washington, DC, Nov. 1-5, 1993.
- C24. George Panagopoulos and Christos Faloutsos *Bit-Sliced Signature Files for Very Large Databases on a Parallel Machine Architecture* EDBT Conference, Cambridge, UK, March 28-31, 1994, pp. 379-392.
- C25. Manish Arya, William Cody, Christos Faloutsos, Joel Richardson and Arthur Toga *QBISM: Extending a DBMS to Support 3D Medical Images* Tenth Int. Conference on Data Engineering (ICDE), Houston, TX, Feb. 14-18, 1994, pp. 314-325.
- C26. Christos Faloutsos, M. Ranganathan and Yannis Manolopoulos *Fast Subsequence Matching in Time-Series Databases* Proc. ACM SIGMOD, Minneapolis MN, May 25-27, 1994, pp. 419-429. (*Best Paper award*).
- C27. Christos Faloutsos and Ibrahim Kamel *Beyond Uniformity and Independence: Analysis of R-trees Using the Concept of Fractal Dimension* Proc. ACM SIGACT-SIGMOD-SIGART PODS, Minneapolis, MN, May 24-26, 1994, pp. 4-13.
- C28. Ibrahim Kamel and Christos Faloutsos *Hilbert R-tree: An improved R-tree using fractals* Proc. of VLDB Conference, Santiago, Chile, Sept. 12-15, 1994, pp. 500-509.
- C29. Douglas W. Oard, Nicholas DeClariss, Bonnie J. Dorr and Christos Faloutsos *On Automatic Filtering of Multilingual Texts* IEEE Conference on Systems, Man and Cybernetics, San Antonio, TX, October 2-5, 1994.
- C30. Christos Faloutsos and King-IP (David) Lin *FastMap: A Fast Algorithm for Indexing, Data-Mining and Visualization of Traditional and Multimedia Datasets* ACM SIGMOD, May 1995, San Jose, CA, pp. 163-174. Also available as technical report (CS-TR-3383, UMIACS-TR-94-132; Inst. for Systems Research: TR 94-80)
- C31. Alberto Belussi and Christos Faloutsos *Estimating the Selectivity of Spatial Queries Using the 'Correlation' Fractal Dimension* VLDB, Sept. 1995, Zurich, Switzerland, pp. 299-310.
- C32. Anil Kumar, Vassilis J. Tsotras and Christos Faloutsos *Access Methods for Bi-Temporal Databases* Int. Workshop on Temporal Databases, Zurich, Switzerland, Sept. 1995.
- C33. Nick Koudas, Christos Faloutsos and Ibrahim Kamel *Declustering spatial databases on a multi-computer architecture* EDBT Conference, Avignon, France, March 1996, pp. 592-614.
- C34. Philip (Flip) Korn, Nikolaos Sidiropoulos, Christos Faloutsos, Eliot Siegel and Zenon Protopapas, *Fast Nearest-Neighbor Search in Medical Image Databases* Conf. on Very Large Data Bases (VLDB), Bombay, India, Sept. 1996.
- C35. Christos Faloutsos, Yossi Matias and Avi Silberschatz, *Modeling Skewed Distributions Using Multifractals and the '80-20 Law'* Conf. on Very Large Data Bases (VLDB), Bombay, India, Sept. 1996.
- C36. Christos Faloutsos and Volker Gaede *Analysis of the Z-Ordering Method Using the Hausdorff Fractal Dimension* Conf. on Very Large Data Bases (VLDB), Bombay, India, Sept. 1996.

- C37. Flip Korn, Nikos Sidiropoulos, Christos Faloutsos Eliot Siegel and Zenon Protopapas *Fast and Effective Similarity Search in Medical Tumor Databases using Morphology* SPIE Proceedings Vol. 2916, Boston MA, Nov. 1996.
- C38. Vikrant Kobla, David S. Doermann, King-Ip (David) Lin and Christos Faloutsos *Compressed domain video indexing techniques using DCT and motion vector information in MPEG video* Proceedings of the SPIE conference on Storage and Retrieval for Image and Video Databases, Vol. 3022, Feb. 1997.
- C39. Brent Agnew, Christos Faloutsos, Zhengyu Wang, Don Welch and Xiaogang Xue *Web-based Multi-media Retrieval by Content* Proceedings of the SPIE conference on Storage and Retrieval for Image and Video Databases V, San Jose, CA. Feb. 8-14, 1997.
- C40. Flip Korn, H.V. Jagadish and Christos Faloutsos *Efficiently Supporting Ad Hoc Queries in Large Datasets of Time Sequences* ACM SIGMOD, Tucson, AZ, pp. 289-300, May 1997.
- C41. Christos Faloutsos, H.V. Jagadish, Alberto O. Mendelzon and Tova Milo *A Signature Technique for Similarity-Based Queries* SEQUENCES 97, Positano-Salerno, Italy June 11-13 1997.
- C42. Christos Faloutsos, H.V. Jagadish and Nikolaos D. Sidiropoulos *Recovering Information from Summary Data* VLDB, Athens, Greece, Aug. 1997.
- C43. Vikrant Kobla, David Doermann and Christos Faloutsos *VideoTrails: Representing and Visualizing Structure in Video Sequences* ACM Multimedia 97, Nov. 1997, Seattle, WA.
- C44. C. Faloutsos, G. Gibson, T. Mitchell, A. Moore, S. Thrun *Data Mining at CALD-CMU: Tools, Experiences and Research Directions* First Federal Data Mining Symposium, Washington, DC, Dec. 16-17, 1997.
- 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 Segmentation 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. Byoung-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.
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- 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, Agma 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.