

# CHRISTOS FALOUTSOS

## Personal

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## Professional Preparation

National Technical University of Athens, Greece	Electrical Engineering	B.S. 1981
University of Toronto, Canada	Computer Science	M.Sc. 1982
University of Toronto, Canada	Computer Science	Ph.D. 1987

## Appointments

**2000-** Professor, Dept. of Computer Science, Carnegie Mellon University.  
**1998-2000** Associate Professor, Dept. of Computer Science, Carnegie Mellon University.  
**1997-1998** Visiting Associate Professor, Dept. of Computer Science, Carnegie Mellon University.  
**1991-1998** Associate Professor, Dept. of CS, Univ. of Maryland at College Park.  
**1985-1991** Assistant Professor, Dept. of CS, Univ. of Maryland at College Park.

## Products

### *Five Products Most Closely Related.*

1. 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).
2. Spiros Papadimitriou, Jimeng Sun, Christos Faloutsos: *Streaming Pattern Discovery in Multiple Time-Series*. VLDB 2005: 697-708
3. Bryan Hooi, Shenghua Liu, Asim Smailagic, and Christos Faloutsos, *BEATLEX: Summarizing and Forecasting Time Series with Patterns* ECML-PKDD, 2017.
4. Yasuko Matsubara, Yasushi Sakurai, Christos Faloutsos: *The Web as a Jungle: Non-Linear Dynamical Systems for Co-evolving Online Activities*. WWW 2015: 721-731
5. Christos Faloutsos, H.V. Jagadish and Nikolaos Sidiropoulos *Recovering Information from Summary Data* VLDB, Athens, Greece, Aug. 1997.

### *Five Other Significant Products.*

1. Timos Sellis, Nick Roussopoulos and Christos Faloutsos *The R+-Tree: A Dynamic Index for Multi-Dimensional Objects*, VLDB 1987, pp. 507-518 (**1997 VLDB 10 Year Paper Award**).
2. M. Faloutsos, Petros Faloutsos and Christos Faloutsos, *On Power-Law Relationships of the Internet Topology*, SIGCOMM 1999 (**Test of Time** award, 2010).
3. Jure Leskovec, Jon Kleinberg and Christos Faloutsos, *Graphs over Time: Densification Laws, Shrinking Diameters and Possible Explanations* KDD 2005, Chicago, IL. (**Best Research Paper** award).

4. Jure Leskovec, Deepayan Chakrabarti, Jon Kleinberg, Christos Faloutsos *Realistic, Mathematically Tractable Graph Generation and Evolution, Using Kronecker Multiplication*, (ECML/PKDD 2005), Porto, Portugal, 2005. (**Test of time award** in ECML/ PKDD 2015).
5. Leman Akoglu, Mary McGlohon, Christos Faloutsos: *OddBall: Spotting Anomalies in Weighted Graphs*. PAKDD (2) 2010: 410-421 (**Best Research paper** award).

### Synergistic Activities

- Designed the Database curriculum at CMU (15-415, 15-721, 15-826)
- Holds 7 patents (with AT&T, Lucent, IBM, Microsoft), with 7 more pending
- All sabbaticals: with industry (IBM-Almaden twice, Google, Amazon).
- Over 40 tutorials: thirteen on time series, multimedia or tensors (ICML-07, EDBT04, SIGMOD04-05-07-12-15, VLDB02-18, INFOCOM, SIGCOMM, CIKM, ICDE01, WWW-16-20, KDD-17-19); several others, on graphs, anomaly detection, and big-data (CIKM-08, ICDE-09, WWW-07, KDD04-07-09-17-18, SDM-12-14, PKDD-13).
- Open-sourced *PEGASUS*, a hadoop-based, award-winning graph mining system (<http://www.cs.cmu.edu/~pegasus/>)