

0. Dimitrios Tsoumakos, PhD

0.1. Personal 40 Terpsitheas Street, 15341, Athens, Greece

Date of Birth	14/04/1976
Place of Birth	ATHENS
Family Status	SINGLE
Telephone	+306936479242
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0.1.1. Studies

2002- 2006	Doctor of Philosophy (PhD), Computer Science Department, University of Maryland, College Park, 20742, USA Title of Thesis: 'Search, Replication and Data Dissemination for Unstructured P2P Networks' Advisor: Prof. Nicholas Roussopoulos
2000- 2002	Master of Science (MSc), Computer Science Department, University of Maryland, College Park, 20742, USA Title of Thesis: ' <i>Tracking the Locality of change in Web Pages</i> ' Advisor: Prof. Nicholas Roussopoulos
1994- 1999	Diploma in Electrical and Computer Engineering, School of Electrical and Computer Engineering, National Technical University of Athens, Greece Title of Thesis: 'Electronic Study Guide of the ECE Department' Advisor: Prof. Timos Sellis

0.1.2 Scholarships and Awards

2000-2002	UMIACS (University of Maryland Institute for Advanced Computer Studies) scholarship
1998	«Karydoyiannis» scholarship for high G.P.A. (9.6/10.0)
1994	«Papastavridis» scholarship for my admittance to the ECE department (6th out of 160)

0.1.3 Publications

0.1.3.1 Theses

- [T01] **Tsoumakos, D.** 2006. 'Search, Replication and Data Dissemination for Unstructured P2P Networks', PhD Thesis, Computer Science Department, University of Maryland, College Park, 20742, USA.
- [T02] **Tsoumakos, D.** 2002. 'Tracking the Locality of change in Web Pages', MSc Thesis, Computer Science Department, University of Maryland, College Park, 20742, USA.
- [T03] **Tsoumakos, D.** 2002. 'Electronic Study Guide of the ECE Department', Diploma Thesis, School of Electrical and Computer Engineering, National Technical University of Athens, Greece.

0.1.3.2 Studies, Educational Books

0.1.3.3 Articles in Refereed International Journals

- [J01] **Doka, K., Tsoumakos, D., Koziris, N.** 2011. 'Brown Dwarf: A Fully-Distributed, Fault-Tolerant Data Warehousing System', Accepted Manuscript, *Journal of Parallel and Distributed Computing*.
- [J02] **Konstantinou, I., Tsoumakos, D., Koziris, N.** 2011. 'Fast and Cost-Effective Online Load-Balancing in Distributed Range-Queriable Systems', In *Transactions on Parallel and Distributed Systems*, 22(8), 1350-1364, Aug. 2011.
- [J03] **Doka, K., Tsoumakos, D., Koziris, N.** 2010. 'Online Querying of d-Dimensional Hierarchies', *Journal of Parallel and Distributed Computing*, 71(3), 424-437, March 2011.
- [J04] **Asiki, A., Tsoumakos, D., Koziris, N.** 2010. 'Distributing and Searching Concept Hierarchies: An Adaptive DHT-based System', *Cluster Computing*, 13(3): 257-276.
- [J05] **Chazapis, A., Asiki, A., Tsoukalas, G., Tsoumakos, D., Koziris, N.** 2010. 'Replica-aware, multi-dimensional range queries in Distributed Hash Tables', *Computer Communications* 33(8): 984-996.
- [J06] **Asiki, A., Doka, K., Zissimos, A., Konstantinou, I., Tsoumakos, D., Koziris, N., Tsanakas, P.** 2009. 'A Grid middleware for data management exploiting Peer-to-Peer techniques', *FUTURE GENERATION COMPUTER SYSTEMS*, 25: 426-435.
- [J07] **Kantere, V., Tsoumakos, D., Sellis, T., Roussopoulos, N.** 2009. 'GrouPeer: Dynamic Clustering of P2P Databases', *Information Systems* 34(1): 62-86
- [J08] **Kantere, V., Tsoumakos, D., Sellis, T.** 2008. 'A Framework for Semantic Grouping in P2P Databases', *Information Systems* 33(7-8): 611-636
- [J09] **Tsoumakos, D., Roussopoulos N.** 2003. 'Probabilistic Knowledge Discovery and Management for P2P Networks', *P2P Journal*, November 2003

0.1.3.5 Book Chapters

0.1.3.6 Articles in Refereed International Conferences

- [C01] **Konstantinou, I., Angelou, E., Boumpouka, C., Tsoumakos, D., Koziris, N.,** 2011. 'On the Elasticity of NoSQL Databases over Cloud Management Platforms'. To appear in proceedings of the 20th ACM Conference on Information and Knowledge Management (CIKM 2011 – poster paper), October 24-28, 2011 – Glasgow, Scotland.
- [C02] **Doka, A., Tsoumakos, D., Koziris, N.,** 2011., 'KANIS: Preserving k-Anonymity Over Distributed Data'. In proceedings of the 5th International Workshop on Personalized Access, Profile Management, and Context Awareness in Databases (PersDB 2011), September 2, 2011 - Seattle, WA.
- [C03] **Asiki, A., Tsoumakos, D., Koziris, N.,** 2011., 'LinkedPeers: A Distributed System for Interlinking Multidimensional Data'. In proceedings of the 22nd International Conference on Database and Expert Systems Applications (DEXA 2011), Toulouse, France, August 29 - September 2, 2011.
- [C04] **Doka, A., Tsoumakos, D., Koziris, N.,** 2010., 'Brown Dwarf: A P2P Data-Warehousing System'. In proceedings of the 19th ACM International Conference on Information and Knowledge Management (demo track), Toronto, Canada, October 26-30, 2010.
- [C05] **Doka, A., Tsoumakos, D., Koziris, N.,** 2010., 'Brown Dwarf: Distributing the Power of OLAP'. In proceedings of the 19th ACM International Symposium on High Performance Distributed Computing (HPDC'10), Chicago, Illinois, USA, June 23-25, 2010.
- [C06] **Doka, A., Tsoumakos, D., Koziris, N.,** 2010., 'Efficient Updates for a Shared Nothing Analytics Platform'. In Proceedings of the International Workshop on Massive Data Analytics over the Cloud (MDAC2010) in conjunction with WWW 2010, Raleigh, North Carolina, USA, April 26, 2010.
- [C07] **Konstantinou, I., Angelou, E., Tsoumakos, D., Koziris, N.,** 2010. 'Distributed Indexing of Web Scale Datasets for the Cloud'. In Proceedings of the International Workshop on Massive Data Analytics over the Cloud (MDAC2010) in conjunction with WWW 2010, Raleigh, North Carolina, USA, April 26, 2010.
- [C08] **Zisimos, A., and Doka, K., Chazapis, A., Tsoumakos, D., and Koziris, N.,** 2009., 'Optimizing Data Management in Grid Environments'. In Proceedings of the 11th International Symposium on Distributed Objects, Middleware, and Applications (DOA'09), Vilamoura, Algarve-Portugal, Nov01- 03, 2009.
- [C09] **Konstantinou, I., Tsoumakos, D., Koziris, N.** 2009. 'Measuring the Cost of Online Load-Balancing in Distributed Range-Queriable Systems'. In Proceedings of the Ninth International Conference on Peer-to-Peer Computing, Seattle, WA, USA, 8-11 Sept. 2009.

- [C10] **Asiki, A., Tsoumakos, D., Koziris, N.** 2009. 'An Adaptive On-line System for Efficient Processing of Hierarchical Data', In Proceedings of the 18th International Symposium on High Performance Distributed Computing (HPDC), Munich, Germany, 11-13 June 2009.
- [C11] **Doka, A., Tsoumakos, D., Koziris, N.** 2008. 'HiPPIS: An Online P2P System for Efficient Lookups on d-Dimensional Hierarchies', In Proceedings of the 10th International Workshop on Web Information and Data Management, Napa Valley, California, 26-30 October 2008.
- [C12] **Konstantinou, I., Tsoumakos, D., Koziris, N.** 2008. 'PASS It ON (PASSION): An Adaptive Online Load-Balancing Algorithm for Distributed Range-Query specialized Systems', In Proceedings of the 16th International Conference on Cooperative Information Systems (Poster Paper), Monterrey, Mexico, 12-14 November 2008.
- [C13] **Asiki, A., Doka, A., Tsoumakos, D., Koziris, N.** 2008. 'Online Querying of Concept Hierarchies in P2P Systems', In Proceedings of the 16th International Conference on Cooperative Information Systems, Monterrey, Mexico, 12-14 November 2008.
- [C14] **Asiki, A., Doka, A., Tsoumakos, D., Koziris, N.** 2008. 'Support for Concept Hierarchies in DHTs', In Proceedings of 8th International Conference on Peer-to-Peer Computing, Aachen University, Germany, 8-11 September 2008.
- [C15] **Kantere, V., Tsoumakos, D., Sellis, T.**, 2008. 'Semantic Grouping of Social Networks in P2P Database Settings'. In proceedings of the 18th International Conference on Database and Expert Systems Applications (DEXA '07), Regensburg, Germany, 3-7 September 2007.
- [C16] **Tsoumakos, D., Roussopoulos N.** 2006. 'APRE: An Adaptive Replication Scheme for Unstructured Overlays'. In proceedings of the 14th International Conference on Cooperative Information Systems (CoopIS 2006), Montpellier, France, Nov 1-Nov 3 2006.
- [C17] **Tsoumakos, D., Roussopoulos N.** 2006. 'Analysis and Comparison of P2P Search Methods'. In proceedings of the first International Conference on Scalable Information Systems (INFOSCALE 2006), Hong Kong , May 30-June 1 2006.
- [C18] **Tsoumakos, D., Roussopoulos N.** 2005. 'AGNO: An Adaptive Group Communication Scheme for Unstructured P2P Networks. In proceedings of the 2005 Euro-Par Conference, Lisbon, Portugal ,August 31-September 2, 2005.
- [C19] **Bitsakos, K., Tsoumakos, D., Roussopoulos N., Alimonos, I.** 2005. 'A Framework for Distributed Human Tracking'. In proceedings of the 2005 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'05), Las Vegas, NV, USA, June 27-30, 2005.
- [C20] **Kantere, V., Tsoumakos, D., Roussopoulos N.** 2004. 'Querying Structured Data in an Unstructured P2P System'. In proceedings of the 6th ACM International Workshop on Web Information and Data Management (WIDM 2004), Washington, DC, USA, November 12-13, 2004.
- [C21] **Tsoumakos, D., Roussopoulos N.** 2004. 'A Framework for Sharing Voluminous Content in P2P Systems'. In proceedings of the 2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'04), Las Vegas, Nevada, USA, June 21-24, 2004.
- [C22] **Tsoumakos, D., Roussopoulos N.** 2003. 'Adaptive Probabilistic Search for Peer-to-Peer Networks. In proceedings of the 3rd IEEE International Conference on P2P Computing, Linkoping, Sweden, Sept 1-3 2003.
- [C23] **Tsoumakos, D., Roussopoulos N.** 2003. 'A Comparison of Peer-to-Peer Search Methods'. In proceedings of the Sixth International Workshop on the Web and Databases, San Diego, CA, USA, June 12-13 2003.

0.1.3.9. Conference Proceedings

0.1.3.10. Consulting

0.1.4. Teaching Experience

0.1.4.1 Teaching

2010-2011 Department of Informatics, Ionian University

Teaching

Classes:

- | | |
|--------|---|
| [T 01] | HY315 – Information Systems Analysis and Design |
| [T 02] | HY200 – Internet Technologies |

- [T 03] HY270 – Advanced Internet Technologies
- [T 04] HY110 – Computer Programming

2009-2010 Computer Science Department, University of Cyprus

Teaching

Classes:

- [T 01] ΕΠΛ602 – Foundations of Internet Technologies (Graduate Course)
- [T 02] ΕΠΛ012 – Web Design Technologies
- [T 03] ΕΠΛ003 – Computer Science and Information Systems
- [T 04] ΕΠΛ132 – Programming Principles II

2000-2001 Computer Science Department, University of Maryland

Teaching Assistant

Classes:

- [TA 01] CMSC 214 – Computer Science II (C++)
- [TA 02] CMSC 424 – Data Base Systems

1999-2000 School of Electrical and Computer Engineering, National Technical University of Athens

Teaching Assistant

Classes:

- [TA 01] Data Structures (4th Semester Course)

0.1.4.2. Advising of Doctoral Students

PhD Completions

Student	Title	Year
Aikaterini Doka	Distributed Database Systems	2007-2011
Ioannis Konstantinou	Distributed Systems	2007-2011

Dr. Tsoumakos is supervising the following students:

Student	Area	Year
Athanasia Asiki	Distributed / Grid Systems	2007-
Antonios Zisimos	Data Transfer for Grid Systems	2007-

0.1.5 Professional and Research Experience

0.1.5.1 Professional Positions

0.1.5.1.1 Academic and Research Positions

- 2010- 2011 Visiting Professor
Department of Informatics
Ionian University
- 2009- 2010 Visiting Professor
Department of Computer Science
University of Cyprus
- 2006- PostDoctoral – Senior Researcher

School of Electrical and Computer Engineering
National Technical University of Athens

2006- 2002 Graduate Researcher
Institute for Systems Research
University of Maryland

0.1.5.1.2 Consulting Services

0.1.5.1.3 Other Professional Positions

1999 - 2000 Database programmer for Energy Database
School of Electrical and Computer Engineering
National Technical University of Athens

1998 - 1999 Web Developer
GIS Laboratory, School of Architecture
National Technical University of Athens

0.1.5.2 Participation in Research Projects

2011- 2013 ARCOMEM Project – From Collect-All Archives to Community Memories –
Leveraging the Wisdom of the Crowds for Intelligent Preservation, FP7-ICT-2009.4.1,
team technical leader.

2006- 2009 GREDIA Project – Grid Enabled Access to Rich media Content, FP6-34363, project
team leader. This project aims at the design and implementation of an efficient
multimedia storage, querying and management system in grid systems.

2002-2006 CIP-URI ARMY Research Project: “Distributed Immune Systems for Wireless
Networks”, graduate researcher. The aim of this research project was the design and
development of algorithms in order to assist in the prompt and effective detection of
intrusions in Mobile Ad-hoc Networks (intrusion detection in MANETS).

0.1.6. Other

0.1.7.1. Various responsibilities in International Journals and Conferences

0.1.7.1.1. Journals

0.1.7.1.1.1. Editor in International Journals

0.1.7.1.1.2 Guest Editor in International Journals

0.1.7.1.1.3. Editorial Board Member in International Journals

0.1.7.1.1.4. Referee in International Journals

- [1] ACM Transactions on Internet Technology
- [2] Data and Knowledge Engineering Journal (DKE)
- [3] IEEE Transactions on Learning Technologies
- [4] Information Sciences
- [5] Journal of Computer Science and Technology (JCST)
- [6] Computer Communications (Elsevier)
- [7] IEEE Transactions on Parallel and Distributed Systems
- [8] Information Systems
- [9] IEEE Transactions on Knowledge and Data Engineering (TKDE)

0.1.7.1.2. Conferences

PC member – International Conference on Theory and Practice of Digital Libraries (TPDL 2011)
PC member - 6th International Workshop on Using P2P, Grid and Agents for the Development of Content Networks (upgrade-cn2011)

0.1.7.1.2.1 Organization-Coordination of Mini-tracks

0.1.7.1.2.2. Scientific – Organizing Committee Member

0.1.7.1.2.3. Referee in International Conferences

Year	Conference	Abbrev.
2002	ACM's Special Interest Group on Management Of Data	SIGMOD
2003	International Conference on Very Large Data Bases	VLDB
2004	International Conference on Distributed Computing Systems	ICDCS
2004	Agents and Peer-to-Peer Computing	AP2PC
2004	IEEE International Conference on P2P Computing	P2P
2005	Americas Conference on Information Systems	AMCIS
2007	ACM's Special Interest Group on Management Of Data	SIGMOD
2008	International Workshop on Data Management in Peer-to-peer systems	DAMAP
2008	International Conference on Parallel Processing	ICPP
2008	IEEE International Conference on Data Engineering	ICDE
2009	International Conference on Very Large Data Bases	VLDB
2011	International Conference on Theory and Practice of Digital Libraries	TPDL

0.1.7.2. Participation in Committees, Study Groups and Administrative Positions

0.1.7.3. Main Speaker in Specialized Seminars

18/03/2008	University of Crete – Foundation for Research and Technology
Multiple	University of Maryland – Comp. Sci. Dept, Database Chat
05/03/2009	University of Crete – Department of Computer Science
22/06/2009	Technical University of Crete – Dept. of Electrical and Computer Engineering
04/11/2009	University of Cyprus – Computer Science Department
23/02/2010	University of Ioannina – Computer Science Department
01/04/2011	National and Kapodistrian University of Athens – Department of Informatics
19/05/2011	National Technical Un. of Athens – Dept. of Electrical and Computer Engineering

0.2. Citations

Up to date, there have been 447 citations over 14 different papers. We choose to present a small number of them (complete number in parenthesis)

[1] **D. Tsoumakos and N. Roussopoulos: Adaptive Probabilistic Search for Peer-to-Peer Networks. In proceedings of the 3rd IEEE International Conference on P2P Computing, Sept 1-3 2003, Linkoping, Sweden (218 references)**

- [A01] Kumar, A. Xu, J. Zegura, E. W. 2005. 'Efficient and Scalable Query Routing for Unstructured Peer-to-Peer Networks', IEEE INFOCOM, 2005, VOL 2, pages 1162-1173
- [A02] D. Zeinalipour-Yazti, V. Kalogeraki, D. Gunopulos. 2005. 'Exploiting locality for scalable information retrieval in peer-to-peer networks', Information Systems, Vol. 30, Issue 4, June 2005
- [A03] Yang, B. Vinograd, P. Garcia-Molina, H. 2004. 'Evaluating GUESS and Non-Forwarding Peer-to-Peer Search'. In International Conference on Distributed Computing Systems, 2004, VOL 24, pages 209-218

[2] D. Tsoumakos and N. Roussopoulos: A Comparison of Peer-to-Peer Search Methods. In proceedings of the Sixth International Workshop on the Web and Databases, June 12-13 2003, San Diego, USA (145 references)

- [A01] S. Androutsellis-Theotokis, D. Spinellis. 2004. 'A survey of peer-to-peer content distribution technologies', ACM Computing Surveys (CSUR), Volume 36 , Issue 4 (December 2004)
- [A02] H. Zhuge, J. Liu, L. Feng, X. Sun, C. He. 2005. 'QUERY ROUTING IN A PEER-TO-PEER SEMANTIC LINK NETWORK', Computational Intelligence 21 (2), Volume 21 Issue 2 Page 197-216, May 2005
- [A03] Xu, L. Dai, C. Cai, W. Zhou, S. Zhou, A.2004. 'Towards Adaptive Probabilistic Search in Unstructured P2P Systems'. LECTURE NOTES IN COMPUTER SCIENCE (APWeb2004), 2004, ISSUE 3007, pages 258-268

[3] D. Tsoumakos and N. Roussopoulos: Analysis and Comparison of P2P Search Methods. In proceedings of the first International Conference on Scalable Information Systems (INFOSCALE 2006), May 30-June 1, Hong Kong (47 references)

- [A01] Exarchakos, G. Antonopoulos, N. 2007. 'Resource Sharing Architecture For Cooperative Heterogeneous P2P Overlays', JOURNAL OF NETWORK AND SYSTEMS MANAGEMENT, 2007, VOL 15; NUMBER 3, pages 311-334
- [A02] S. Blanas, V. Samoladas. 2007. 'Contention-based performance evaluation of multidimensional range search in peer-to-peer networks'. Proceedings of the 2nd international conference on Scalable information systems.

[4] D. Tsoumakos and N. Roussopoulos: APRE: An Adaptive Replication Scheme for Unstructured Overlays. In proceedings of the 14th International Conference on Cooperative Information Systems (CoopIS 2006), Nov 1-Nov 3 2006, Montpellier, France (3 references)

[5] D. Tsoumakos and N. Roussopoulos: AGNO: An Adaptive Group Communication Scheme for Unstructured P2P Networks. In proceedings of the 2005 Euro-Par Conference, August 31-September 2, 2005, Lisbon, Portugal (4 references)

[6] V. Kantere and D. Tsoumakos and N. Roussopoulos: Querying Structured Data in an Unstructured P2P System. In proceedings of the 6th ACM International Workshop on Web Information and Data Management (WIDM 2004), November 12-13, 2004, Washington, DC, USA (4 references)

[7] D. Tsoumakos and N. Roussopoulos: A Framework for Sharing Voluminous Content in P2P Systems. In proceedings of the 2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'04), June 21-24, 2004, Las Vegas, Nevada, USA (2 references)

[8] V. Kantere and D. Tsoumakos and T. Sellis and N. Roussopoulos: GrouPeer: Dynamic Clustering of P2P Databases. Information Systems Journal (11 references)

[9] D. Tsoumakos and N. Roussopoulos: Probabilistic Knowledge Discovery and Management for P2P Networks. P2P Journal, November 2003 (2 references)

[10] V. Kantere and D. Tsoumakos and T. Sellis. 'Semantic Grouping of Social Networks in P2P Database Settings'. In proceedings of the 18th International Conference on Database and Expert Systems Applications (DEXA '07), Regensburg, Germany, 3-7 September 2007 (2 references)

[11] A. Asiki and K. Doka and A. Zissimos and I. Konstantinou and D. Tsoumakos and N. Koziris and P. Tsanakas: A Grid middleware for data management exploiting Peer-to-Peer techniques. In FUTURE GENERATION COMPUTER SYSTEMS, 25 (2009) 426-435. (5 references)

[12] V. Kantere and D. Tsoumakos and T. Sellis: A Framework for Semantic Grouping in P2P Databases. In Inf. Syst. 33(7-8): 611-636 (2008) (2 references)

[13] K. Doka and D. Tsoumakos and N. Koziris: HiPPIS: An Online P2P System for Efficient Lookups on d-Dimensional Hierarchies. In Proceedings of the 10th International Workshop on Web Information and Data Management, Napa Valley, California, 26-30 October 2008 (1 reference)

[14] A. Asiki and K. Doka and D. Tsoumakos and N. Koziris: Support for Concept Hierarchies in DHTs . In Proceedings of 8th International Conference on Peer-to-Peer Computing, Aachen University , Germany , 8-11 September 2008 (1 reference)