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2010

IEEE Fellow

Head of the Division of Communications and Signal Processing

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GENERAL

Education

- Five-year Diploma in Electrical Engineering, Aristotelian University of Thessaloniki, Greece (ranked first in the graduating class of 1983).
- Ph.D. in Electrical Engineering, University of Virginia, May 1988; Thesis: “Random Access Multi-user Communication Networks and Approximation of their Output Processes”.

Main Employment History

- Professor, Department of Informatics University of Athens, Athens, Greece (2002 -)
- Associate Professor, Department of Informatics University of Athens, Athens, Greece (1999 - 2002)
- Associate Professor, Department of Electrical and Computer Engineering, Northeastern University (NU), Boston, MA, USA (1994 – 1999; tenured in 1996).
- Assistant Professor, Department of Computer Science and Electrical Engineering, University of Vermont (UVM), Burlington, VT, USA (1988 – 1994); tenured and promoted to Associate Professor in 1994.
- Research Assistant, Communication Systems Laboratory, Department of Electrical Engineering, University of Virginia, Charlottesville, VA, USA (1984 – 1988).

Other Professional Experience

- Visiting Professor, University of Trento (Feb. 2004).
- Consultant for Mitre Corporation on the development of protocols for highly mobile networks with ad-hoc structure, 1997 – 98.
- Consultant for Mayflower Communications on traffic modeling for the ICO satellite system, 1996 – 97.
- National Technological University (NTU) Instructor, 1994 – 97.
- Visiting Scientist, CNUCE Institute of the Italian National Research Council (CNR), Pisa, Italy (May – July 1994).
- Visiting Scientist, Queen’s University, Kingston, Canada (Aug. 1990).

Research Interest

Design aspects of networking technologies ranging from link to application layers.

- Resource allocation protocols for Computer/Communication networks.
- Wireless, ad hoc, peer-to-peer, sensor, content and multimedia networking.
- Network modelling and performance evaluation.

Honors and Awards

- Fellow of IEEE (Institute of Electrical and Electronics Engineers)
- National Greek Scholarship, 1978 – 1983.
- Research Assistantship, University of Virginia, 1984 – 1988.
- Panchiakon Scholarship Foundation “Pateras”, 1984 – 1987.
- USA National Science Foundation Research Initiation Award, 1990.

PUBLICATIONS

Journal Publications

1. I. Stavrakakis, D. Kazakos, “A limited Sensing Protocol for Multi-user Packet Radio Systems,” *IEEE Transactions on Communications*, Vol. 37, No. 4, pp. 353-359, April 1989.
2. I. Stavrakakis, D. Kazakos, “Performance Analysis of a Star Topology of interconnected Networks under 2nd –order Markov Network Output Processes,” *IEEE Transactions on Communications*, Vol. 38, No. 10, pp. pp. 1724-1731, Oct. 1990.
3. I. Stavrakakis, D. Kazakos, “On the Approximation of the Output Process of Multi-user Random Access Communication Networks,” *IEEE Transactions on Communications*, Vol. 38, No. 2, pp. 172- 178, Feb. 1990.
4. I. Stavrakakis, “Efficient Modeling of Merging and Splitting Processes in Large Networking Structures,” *IEEE Journal on selected Areas in Communications*, Vol. 9, No.8, pp. 1336-1347, Oct. 1991.
5. I. Stavrakakis, “Statistical Multiplexing under Non-i.i.d. Packet Arrival Processes and Different Priority Policies,” *Performance Evaluation Journal*, North-Holland, Vol. 12, No.3, pp. 181-189, June 1991.
6. I. Stavrakakis, D. Kazakos, “Queuing behavior of Two Interconnected Buffers of a Packet Network with Application to the Evaluation of Packet Routing Policies,” *International Journal of Digital and Analog Communication systems*, John Wiley and Sons, Vol. 4, pp. 249-260, 1991.
7. I. Stavrakakis, D. Kazakos, “A Multi-user Random Access Communication system for Users with Different Priorities,” *IEEE Transactions on Communications*, Vol. 39, No. 11, pp. 1538-1541, Nov. 1991.
8. I. Stavrakakis, “Queuing Analysis of a Class of Star Interconnected Networks under Markov Modulated Output Process Modeling,” *IEEE Transactions on Communications*, Vol. 40, No. 8, pp. 1345-1354, Aug. 1992.
9. I. Stavrakakis, “Traffic modeling for Packet Communication Networks,” *International Journal of Digital and Analog Communication Systems*, John Wiley and Sons, Vol. 5, pp. 157-165, 1992.
10. R. Landry, I. Stavrakakis, “Queuing Study of a 3-Priority Policy with Distinct Service Strategies,” *IEEE/ACM Transactions on Networking*, Vol. 1, No. 5, pp. 576-589, Oct. 1993.
11. I. Stavrakakis, “A Two-Server Queuing System with Periodic and Credit-Based Server Availabilities,” *Annals of Operation Research*, issue on Methodologies for High Speed Networks, Vol. 49, pp. 79-100, 1994.
12. M Abdelaziz, I. Stavrakakis, “Some Optimal Traffic Regulation Schemes for ATM Networks: A Markov Decision Approach,” *IEEE/ACM Transactions on Networking*, Vol. 2, No. 5, pp. 508-519, Oct. 1994.
13. I. Stavrakakis, S. Tsakiridou, “A Markov Service Policy with Application to the Queuing Study of a DQDB Station,” *Computer Networks and ISDN Systems*, Vol. 26, No. 12, pp. 1503-1522, Sept. 1994.
14. I. Stavrakakis, “Delay Bounds on a Queuing System with Consistent Priorities,” *IEEE Transactions on Communications*, Vol. 42, No. 2, pp. 615-624, Feb. 1994.
15. I. Stavrakakis, “Channel Assignment Under a Conflict-Free Allocation Policy,” *IEEE Transactions on Communications*, Vol. 42, No. 2, pp. 466-476, Feb. 1994.

16. I. Stavrakakis, S. Tsakiridou, "Analysis of a Non-Gated Integrated Services TDM," *IEEE Transactions on Communications*, Vol. 43, No. 2, pp. 729-732, March 1995.
17. I. Stavrakakis, "Characterization and Multiplexing of Correlated Traffic from Sources with Different Time Constants," *Computer Communications Journal*, special issue on Enabling ATM Networks, Vol. 19, No. 13, pp. 1112-1123, Nov. 1996.
18. J. Capone, I. Stavrakakis, "Achievable QoS and Scheduling Policies for Integrated Services Wireless Networks," *Performance Evaluation Journal*, Vol. 27 & 28, pp. 347-365. Oct. 1996. [Also presented at the IFIP Performance '96 Conference. Oct. 7-11, 1996. Lausanne, Switzerland.]
19. S. Tsakiridou, I. Stavrakakis, "Mean Delay Analysis of a Statistical Multiplexer with Batch Arrival Processes – A Generalization to Viterbi's Formula," *Performance Evaluation Journal*, Vol. 25, No. 1, pp. 1-15, March 1996.
20. R. Landry, I. Stavrakakis, "Study of Delay Jitter With and Without Peak Rate Enforcement," *IEEE/ACM Transactions on Networking*, Vol. 5, No. 4, pp. 543-553, Aug. 1997.
21. R. Landry, I. Stavrakakis, "Multiplexing ATM Traffic Streams with Time-Scale-Dependent Arrival Processes," *Computer Networks and ISDN Systems*, Vol. 29, pp. 293-313, 1997.
22. I. Stavrakakis, S. Tsakiridou, "Study of a Class of Partially Ordered Service Strategies for a System of Two Discrete-Time Queues," *Performance Evaluation Journal*, Vol. 29, pp. 15-33, 1997.
23. J. Capone, I. Stavrakakis, "Determining the Call Admission Region for Real-Time Heterogeneous Application in Wireless TDMA Networks," *IEEE Network Magazine*, Vol. 12, No. 2, pp. 38-47, March/April 1998.
24. T. Dag, I. Stavrakakis, "Evaluation of ABR Traffic Management under Various System Time Scales," *Computer Networks and ISDN Systems*, Vol. 29, pp. 2103-2177, 1998.
25. J. Capone, I. Stavrakakis, "Achievable QoS in an Interference/Resource-Limited Shared Wireless Channel," *IEEE Journal on Selected Areas in Communications*, Vol. 17, No. 11, pp. 2041-2051, Nov. 1999.
26. C. Santivanez, I. Stavrakakis, "Study of Various TDMA schemes for Wireless Networks in the presence of Deadlines and Overhead," *IEEE Journal on Selected Areas in Communications*, Vol. 17, No. 7, pp. 1284-1304, July 1999.
27. Z. Antoniou, I. Stavrakakis, "Scheduling Algorithms for Application-Level QoS Support of Continuous Media Stream," *European Transactions on Telecommunications*, Special issue on Architectures, Protocols and Quality of Service for the Internet of the Future, No. 3, pp. 245-261, May/June 1999.
28. J. Capone, I. Stavrakakis, "Delivering QoS Requirements to Traffic with Diverse Delay Tolerances in a TDMA Environment," *IEEE/ACM Transactions on Networking*, Vol. 7, No. 1, pp. 75-87, Feb. 1999.
29. P. Balaouras, I. Stavrakakis, L. Merakos, "Potential and Limitations of a Teleteaching Environment based on H.323 Audio-Visual Communication Systems," *Computer Networks Journal*, pp. 945-958, Vol. 34, No. 6, Dec. 2000.
30. M. Conti, E. Gregori, I. Stavrakakis, "Impact of Temporal/Spatial Correlations on per Session Performance Measures: Single and Multiple Node case," *Performance Evaluation Journal*, pp. 83-116, Vol. 41, No. 2-3, July 2000.
31. I. Stavrakakis, G. Chen, "Study of a Scheduling Policy for Diversified Deadline-Based Quality-of-Service," *Performance Evaluation Journal*, pp. 37-62, Vol. 41, 2000.
32. S. Iatrou, I. Stavrakakis, "A Dynamic Regulation and Scheduling Scheme for Real Time Traffic Management," *IEEE/ACM Transactions on Networking*, Vol. 8, No. 1, pp. 60-70, Feb. 2000.
33. M. Abdelaziz, I. Stavrakakis, "Adaptive Rate Control in High-Speed Networks: Performance Issues," *Computer Networks Journal*, pp. 363-382, Vol. 37, No. 3-4, Nov. 2001.
34. N. Laoutaris, I. Stavrakakis, "Intrastream Synchronization for Continuous Media Streams: A survey of Playout Schedulers," *IEEE Network Magazine*, Vol. 16, No. 3, May 2002.

35. Z. Antoniou, I. Stavrakakis, "An Efficient, Deadline Credit-based Transport for Prerecorded, Semi-Soft Continuous Media Applications," *IEEE/ACM Transactions on Networking*, Vol. 10, No. 5, pp. 630-643, 2002.
36. N. Laoutaris, I. Stavrakakis, "An Analytical Design of Optimal Playout Schedulers for Packet Video Receivers", *Computer Communications Journal*, Vol. 26, No. 4, March. 2003.
37. T. Dag, I. Stavrakakis, "Proactive Congestion Control for High Speed Networks," *Computer Networks Journal*, Computer Networks, Volume 43, Issue 6, 20 December 2003, Pages 761-775
38. N. Laoutaris, B. VanHoudt, I. Stavrakakis, "Optimization of a Packet Video Receiver under Different Levels of Delay Jitter: An Analytical Approach", *Performance Evaluation Journal*, Vol. 55, No. 3-4, pp. 251-275, Feb. 2004.
39. N. Laoutaris, V. Zissimopoulos, I. Stavrakakis, "Joint Object Placement and Node Dimensioning for Internet Content Distribution", *Information Processing Letters*, Vol. 89, No. 6, pp. 273-279, March 2004.
40. A. Panagakis, Nandita D, I. Stavrakakis, J. Kuri, "Optimal Call Admission Control on a Single Link with a GPS Scheduler", *IEEE/ACM Transactions on Networking*, Vol.12, No. 5, pp. 865-878, Oct. 2004.
41. P. Balaouras, I. Stavrakakis, "Controlling Smoothness and Loss Rate for Elastic Continuous Media Flows" *Computer Networks Journal*, Volume 45, Issue 3, 21 June 2004, Pages 363-378.
42. K. Oikonomou and I. Stavrakakis, "Analysis of a Probabilistic Topology-Unaware TDMA MAC Policy for Ad-Hoc Networks," *IEEE JSAC Special Issue on Quality-of-Service Delivery in Variable Topology Networks*, Vol. 22, No. 7, September 2004, pp. 1286-1300.
43. E. Balafoutis, A. Panagakis, N. Laoutaris, I. Stavrakakis, "Study of the Impact of Replacement Granularity and Associated Strategies on Video Caching", *Cluster Computing Journal*, Vol. 5 (2005), No1; pp.89-100.
44. N. Laoutaris, V. Zissimopoulos, I. Stavrakakis, "On the Optimization of Storage Capacity Allocation for Content Distribution", *Computer Networks Journal*, Vol. 47, No. 3, pp. 409-428, 2005.
45. P. Balaouras, I. Stavrakakis, "A Self-Adjusting Rate Adaptation Scheme with Good Fairness and Smoothness Properties", *Computer Networks Journal*, Vol.48, Issue 6, Aug. 2005, pp. 829-855
46. Konstantinos Oikonomou, Nikos Pronios and Ioannis Stavrakakis, "Performance Analysis of Topology-Unaware TDMA MAC Schemes for Ad-Hoc Networks with Topology Control," *Computer Communications Journal*, Vol. 28, Issue 3, Feb. 2005, pp 313-324.
47. K. Oikonomou, I. Stavrakakis, "Analysis of Topology-Unaware TDMA MAC Policies for Ad-Hoc Networks Under Diverse Traffic Loads", *ACM Mobile Computing and Communications Review*, special issue on Medium Access and Call Admission Control Algorithms for Next Generation Wireless Networks, October 2005, Vol. 9, pp. 25-38.
48. C. Xenakis, N. Laoutaris, L. Merakos, I. Stavrakakis, "A Generic Characterization of the Overheads Imposed by IPsec and Associated Cryptographic Algorithms," *Computer Network Journals*, Vol. 50, No. 17, pp. 3225-3241, 2006.
49. A. Vaios, K. Oikonomou and I. Stavrakakis, "Analysis of a topology control paradigm in WLAN/WPAN environments", *Computer Communications Journal*, Vol.29, 11, July 2006, pp. 2096-210
50. Nikolaos Laoutaris, Hao Che, Ioannis Stavrakakis, " The LCD Interconnection of LRU Caches and Its Analysis," *Performance Evaluation Journal*, Vol. 63, No. 7, pp. 609-634, 2006
51. N. Laoutaris, O. Telelis, V. Zissimopoulos, I. Stavrakakis, "Distributed Selfish Replication" *IEEE Transaction on Parallel and Distributed Systems*, vol. 17, no. 12, pp. 1401-1413, Dec., 2006.
52. K. Oikonomou and I. Stavrakakis, "Energy Consumption for Topology-Unaware TDMA MAC Protocols," *Ad-Hoc Networks Journal*, Ad-Hoc Networks Journal, Elsevier Science, Vol. 4, Iss. 3, May 2006, pp. 359-379.
53. G. Smaragdakis, N. Laoutaris, I. Matta, A. Bestavros, I. Stavrakakis, "Mistreatment-Resilient Distributed Caching", *Computer Network Journal*, Volume 51, Number 11, Aug. 2007.

54. N. Laoutaris, G. Smaragdakis, A. Bestavros, I. Matta, I. Stavrakakis, "Distributed Selfish Caching", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 18, No. 10, Oct. 2007.
55. K. Oikonomou, I. Stavrakakis, "An Adaptive Time-Spread Multiple-Access Policy for Wireless Sensor Networks", *EURASIP Journal on Wireless Communications and Networking*, special issue on "Novel Techniques for Analysis & Design of Cross-Layer Optimized Wireless Sensor Networks", Article ID 64238, 8 pages, 2007.
56. A. Panagakis, A. Vaios, I. Stavrakakis, "Approximate Analysis of LRU in the Case of Short Term Correlations", *Computer Networks Journal*, 52, 6, Apr. 2008, 1142-1152.
57. Christos Xenakis, Christoforos Ntantogian, Ioannis Stavrakakis, "A network-assisted mobile VPN for securing users data in UMTS", *Computer Communications*, Elsevier Science, Vol. 31, Iss. 14, 5 Sept. 2008, Pages 3315-3327.
58. C. Vassilakis, N. Laoutaris, I. Stavrakakis, "On the Impact of Playout Scheduling on the Performance of Peer-to-Peer Live Streaming", *Computer Networks Journal*, Special Issue on "Content Distribution Infrastructures for Community Networks", vol.53 , issue 4, pages 456-469, Mar. 2009.
59. J. Antoniou, I. Koukoutsidis, E. Jaho, A. Pitsillides, I. Stavrakakis, "Access Network Synthesis Game in Next Generation Networks", *Computer Networks Journal*, Vol. 53, pp. 2716-2726, Oct. 2009.
60. A. Panagakis, A. Vaios, I. Stavrakakis, "On the Performance of Two-Hop Message Spreading in DTNs", *Ad-Hoc Networks Journal*, Vol. 7, Iss. 6, pp. 1082-1096, Aug. 2009.
61. K. Oikonomou, I. Stavrakakis, "Scalable Service Migration in Autonomic Network Environments", special issue of *IEEE Journal on Selected Areas in Communications* (JSAC) on "Recent Advances in Autonomic Communications", Vol. 28, No. 1, pp. 84-94, Jan. 2010.
62. A. Vaios, K. Oikonomou, N. Zinelis, I. Stavrakakis, "Increasing Capacity in Dual-band WLANs through Ad-hoc Networking," *International Journal of Wireless and Mobile Computing (IJWMC)*, Special Issue on Wireless Ad Hoc Networking, to appear (accepted in 2006).
63. G. Smaragdakis, N. Laoutaris, K. Oikonomou, I. Stavrakakis, and A. Bestavros, "Distributed Server Migration for Scalable Internet Service Deployment," *IEEE/ACM Transactions on Networking*, to appear.
64. C. Ntantogian, C. Xenakis, I. Stavrakakis "A Generic Mechanism for Efficient Authentication in B3G Networks" *Computers & Security, Elsevier Science*, to appear.
65. K. Oikonomou, D. Kogias, I. Stavrakakis, "Probabilistic Flooding for Efficient Information Dissemination in Random Graph Topologies", *Computer Networks Journal*, to appear.
66. L. Tzevelekas, K. Oikonomou, I. Stavrakakis, "Random Walk with Jumps in large-scale Geometric Random Graphs", *Computer Communications Journal*, to appear.
67. C. Vassilakis, I. Stavrakakis, "Minimizing Node Churn in Peer-to-Peer Streaming Computer Communications", *Computer Communications Journal*, to appear.
68. E. Jaho, I. Koukoutsidis, I. Stavrakakis, I. Jaho "Cooperative Replication in Autonomic Content Networks under Node Churn", *IEEE/ACM Transactions on Networking*, submitted.
69. E. Kafetzakis, K. Kontovasilis, I. Stavrakakis, "A Novel Effective Capacity-Based Framework for Providing Statistical QoS Guarantees in IEEE 802.11 WLANs", *Computer Networks Journal*, submitted.
70. E. Kafetzakis, K. Kontovasilis, I. Stavrakakis, "Effective Capacity-based Stochastic Delay Guarantees for Systems with Time-Varying Servers, with an Application to IEEE~802.11 WLANs", *Performance Evaluation Journal*, submitted.
71. S. Tang, E. Jaho, I. Stavrakakis, I. Koukoutsidis, P. Van Mieghem, "Modeling Gossip-based Content Dissemination and Search in Distributed P2P Overlays", submitted.

Conference Proceedings

[(**) indicates the review is based on abstract or summary and complete paper is published in the proceedings; (*) indicated that review is based on abstract or summary and abstract or summary is published in the proceedings; no star indication implies that the review is based on complete paper and complete paper is published in the proceedings]

1. I. Stavrakakis, D. Kazakos, "A Simple Stack Algorithm for a code Division Multiple Access Communication System," 25th Conference on Decision and Control (CDC), Dec. 10-12, 1986, Athens, Greece.
2. I. Stavrakakis, D. Kazakos, "Interconnected Multi-user Packet Radio Networks," Symposium on C3 Research, Jun. 16-19, 1987, National Defense University, fort Lesley J. McNair, Washington, D.C. (**)
3. I. Stavrakakis, D. Kazakos, "A Non-Homogeneous User Population Multi-user Random Access Communication System," 26th Conference on Decision and Control (CDC), Dec. 9-11, 1987, Los Angeles.
4. I. Stavrakakis, D. Kazakos, "2nd-order Markovian Approximation on the Output Process of a Multi-user Communication Network," 22nd Annual Conference on Information Sciences and Systems (CISS), Princeton University, Mar. 16-18, 1988, Princeton. (**)
5. I. Stavrakakis, D. Kazakos, "On the Approximation of the Output Process of Multi-user Random Access Communication Networks," IEEE INFOCOM '88, Mar. 28-31, 1988, New Orleans.
6. I. Stavrakakis, D. Kazakos, "A Communication Network with Some High Priority Messages," Symposium on Command and Control Research, June 7-9, 1988, Monterey, California. (**)
7. I. Stavrakakis, "Analysis of Interconnected Communication Networks," Symposium on Command and Control Research, June 27-29, 1989, Washington D.C. (**)
8. I. Stavrakakis, "A Time Division Multiplexer (TDM) with Dependent Packet Arrival Processes," IEEE Southeastcon '90, April 1-4, 1990, New Orleans. (**)
9. I. Stavrakakis, "A Fair Statistical Multiplexer for Integrated Services Packet Networks," IEEE Southeastcon '90, April 1-4, 1990, New Orleans. (**)
10. I. Stavrakakis, "An Analysis Approach to Multi-Level Networking," International Conference on Communications (ICC '90), April 15-19, 1990, Atlanta.
11. I. Stavrakakis, "Analysis of a Statistical Multiplexer under a General Input Traffic Model," IEEE INFOCOM'90, June 5-7, 1990, San Francisco.
12. I. Stavrakakis, "Analysis of a Class of Star Interconnected Networks," IEEE INFOCOM'90, June 5-7, 1990, San Francisco.
13. I. Stavrakakis, "Statistical Multiplexing under Non-i.i.d. Packet arrival Processes and different Priority Policies," 4th International Conference on Data Communication Systems and Their Performance, June 20-22, 1990, Barcelona, In Data Communication Systems and Their performance, ed.: G. Pujolle and R. Puigjaner, Elsevier Science Publishers B.V, 1991.
14. I. Stavrakakis, "Analysis of Interconnected Buffers in a Packet Network," 1990 Canadian Conference in Electrical and Computer engineering, Sept. 4-6, 1990, Ottawa. (**)
15. I. Stavrakakis, "Buffer Behavior under Dependent Packet Arrival Processes with Guaranteed Idle Epochs," 25th Annual Conference on Information Sciences and Systems (CISS), The Johns Hopkins University, Mar. 20-22, 1991, Baltimore. (*)
16. I. Stavrakakis, "Capacity Allocation under Random Slot Assignment Policy," IEEE INFOCOM'91, Apr. 7-11, 1991, Miami.
17. I. Stavrakakis, S. Tsakiridou, "Analysis of Integrated Services TDM with Correlated Traffic," IEEE INFOCOM'92, May. 4-8, 1992, Florence, Italy.
18. I. Stavrakakis, "A Considerate Priority Queuing System with Guaranteed Policy Fairness," IEEE INFOCOM'92, May 4-8, 1992, Florence, Italy.
19. I. Stavrakakis, R. Landry, "Delay Analysis of a DQDB MAN Station Based on a Simple Model," International Conference on Communications (ICC'92), June 14-18, 1992, Chicago
20. I. Stavrakakis, "Statistical Multiplexing of Correlated Slow Traffic Sources," IEEE GLOBE-COM'92, Dec. 6-9, 1992, Orlando.

21. I. Stavrakakis, S. Tsakiridou, "Occupancy Distributions for a DQDB Station Based on a Queuing System with Markov-Structured Service Requirements," IEEE INFOCOM'93, Mar. 28 – Apr. 1, 1993, San Francisco
22. R. Landry, I. Stavrakakis, "A Three Priority Queuing Policy with Application to Communication Networks," IEEE INFOCOM'93, Mar. 28 – Apr. 1, 1993, San Francisco.
23. I. Stavrakakis, M. Abdelaziz, D. Hoag, "A User Relief Approach to Congestion Control in ATM Networks," 6th Triangle Conference on Computer Communications (TriComm'93), April 20-21, 1993, Raleigh, NC. In Asynchronous Transfer Mode Networks, ed.: I. Viniotis, R. Onvural, Plenum Press, 1993.
24. S. Tsakiridou, I. Stavrakakis, "Queuing Analysis of a Versatile Class of Service Policies," 5th International Conference on Data Communication Systems and their Performance, Oct.26-28, 1993, Raleigh, NC. In High Speed Networks and Their Performance, ed.: H. Perros, I. Viniotis, Elsevier Science Publishers B.V., 1994.
25. R. Landry, I. Stavrakakis, "Multiplexing Generalized Periodic Markovian Sources with an Application to the Study of VBR Video," International Conference on Communications (ICC'94), May 2-5, 1994, N. Orleans.
26. R. Landry, I. Stavrakakis, "Non-Deterministic Periodic Packet Streams and Their Impact on a Finite-Capacity Multiplexer," IEEE INFOCOM'94, June 12-16, 1994, Toronto, Canada.
27. R. Landry, I. Stavrakakis, "End-to-End Delay and Jitter Analysis in ATM Networks," 2nd IFIP Workshop on Performance Modeling and Evaluation of ATM Networks (IFIP ATM'94), July 4-6, 1994, University of Bradford, Bradford, UK. (**)
28. R. Landry, I. Stavrakakis, "A Queuing Study of Peak-Rate Enforcement for Jitter Reduction in ATM Networks," IEEE GLOBECOM'94, Nov. 37 – Dec. 1, 1994, San Francisco.
29. M. Abdelaziz, I. Stavrakakis, "Open- and Closed-Loop Traffic Regulation Schemes for ATM Networks," IEEE GLOBECOM'94, Nov. 27 – Dec. 1, 1994, San Francisco. (***)
30. R. Landry, I. Stavrakakis, "Traffic Shaping of a Tagged Stream in an ATM Network: Approximate End-to-End Analysis," IEEE INFOCOM'95, April 2-6, 1995, Boston. (***)
31. M. Abdelaziz, I. Stavrakakis, "Study of an Adaptive Rate Control Scheme under Unequal Propagation Delays," International Conference on Communications (ICC'95), June 18-22, 1995, Seattle.
32. M. Conti, E. Gregori, I. Stavrakakis, "Study of the Impact of Temporal/Spatial Correlations on a Tagged Traffic stream," pp. 194-208, 6th International Conference on Data Communication Systems and their Performance, Oct. 23-26, 1995, Istanbul, Turkey. In Data Communication Systems and their performance, ed.: S. Fdida, R. Onvural, Chapman & Hall, 1996.
33. G. Chen, I. Stavrakakis, "ATM Traffic Management with Diversified Loss and Delay Requirements," IEEE INFOCOM'96, March 26-28, 1996, San Francisco.
34. X. Wang, I. Stavrakakis, "Study of Scheduling for Group-based Quality of Service Delivery 4th IFIP Workshop on Performance Modeling and Evaluation of ATM Networks," July 8-10, 1996, Ilkley, West Yorkshire, U.K. (**)
35. S. Iatrou, I. Stavrakakis, "A Dynamic Real – Time Traffic Management Scheme with Good Throughput and Jitter Characteristics," pp. 215-226, 10th ITC Specialist Seminar in Control in Communications, Sept. 17-19, Lund, Sweden.
36. J. Capone, I. Stavrakakis, "Scheduling VBR Traffic for Achievable QoS in a Shared Unbuffered Environment," International Conference on Universal Personal Communications (ICUPC'96), Sept. 29 – Oct. 2, 1996, Boston, MA. (**)
37. M. Abdelaziz, I. Stavrakakis, "Study of the Effectiveness of Adaptive Rate Control for Slow Arrival Processes," IEEE GLOBECOM'96, Nov. 18-22, 1996, London, U.K.
38. T. Dag, I. Stavrakakis, "Study of Impact of Network and Source Time Scales on Feedback-Based Congestion Control," SPIE International Conference on Voice, Video, and Data Communications, Nov. 18-22, 1996, Boston, MA. (**)
39. X. Wang, I. Stavrakakis, "Study of Scheduling for Group-based Quality of Service Delivery," Third volume on Performance Modeling and Evaluation of ATM Networks, ed.: D. Kouvatsos, Chapman & Hall, 1997.
40. J. Capone, I. Stavrakakis, "Achievable QoS in a Shared Wireless Channel," Session III, Paper No. 4, pp.1-6, Fourth IEEE Workshop on the Architecture and Implementation of High Performance Communication Systems (HPCS'97), June 23-25, 1997, Sani Beach, Chalkidiki, Greece. (**)

41. T. Tag, I. Stavrakakis, "Toward a Time-Scale Based Framework for ABR Traffic Management," Session I, Paper No. 1, pp.1-13, EXPERT Symposium on ATM Traffic Management, Sept. 17-18, 1997, Mykonos, Greece. (**)
42. J. Capone, I. Stavrakakis, "Delivering Diverse Delay/Dropping QoS Requirements in a TDMA Environment," IEEE/ACM International Conference on Mobile Computing and Networking 1997 (MobiCom'97), pp.110-119, September 26-30, 1997, Budapest, Hungary.
43. T. Tag, I. Stavrakakis, "On the Impact of Time Scales on Feedback Based Congestion Control," pp.1685-1689, IEEE GLOBECOM'97, Nov. 4-8, 1997, Phoenix, AZ.
44. S. Iatrou, I. Stavrakakis, "An Integrated Regulation and Scheduling Scheme for Real Time Traffic Management," pp. 1378-1382, IEEE GLOBECOM'97, Nov. 4-8, 1997, Phoenix, AZ.
45. Z. Antoniou, I. Stavrakakis, "Earliest Due First Scheduling for Application-Level QoS Delivery," pp. 172-181, IEEE Conference on Protocols for Multimedia Systems – Multimedia Networking (PROMS-MmNet'97), Nov. 24-26, Santiago, Chile.
46. T. Dag, I. Stavrakakis, "A Proactive Feedback Based Flow Control Scheme for ABR Services," pp. 1342-1346, 3rd Asia-Pacific Conference on Communications (APCC'97), Dec. 7-10, 1997, Sydney, Australia.
47. J. Capone, I. Stavrakakis, "Achievable QoS in an Interface/Resource-Limited Shared Wireless Channel," pp. 283-294, Performance of Information and Communications Systems (PICS'98) May 25-28, 1998, Lund, Sweden.
48. Z. Antoniou, I. Stavrakakis, "Efficient QoS Support of Continuous Media Stream Packets with Variable Size and Diverse Deadlines," International Conference on Telecommunications (ICT'98), June 22-25, 1998, Chalkidiki, Greece.
49. M. Conti, E. Gregori, I. Stavrakakis, "Impact of Temporal/Spatial Correlations on Per Session Performance Measures: Multiple Node Case," 6th IFIP Workshop on Performance Modeling and Evaluation of ATM Networks (IFIP ATM'98), July 20-22, 1998, Ilkley, West Yorkshire, U.K. (**)
50. C. Santivanez, I. Stavrakakis, "Achievable Dropping Rates under Variable Frame TDMA Schemes in the presence of Deadlines and Overhead," pp. 337-344, Fifth International Workshop on Mobile Multimedia Communication, Oct. 12-14, 1998, Berlin, Germany. **[Best Student Paper Award]** (**)
51. T. Dag, I. Stavrakakis, "QoS Based ABR Service under the PF Based Flow Control Scheme," IEEE International Conference on Communications (ICC'99), June 6-10, 1999, Vancouver, Canada.
52. F. Abi-Nassif, W. Lee, I. Stavrakakis, "Offered Load Estimation in a Multimedia Cable Network System," IEEE International Conference on Communications (ICC'99), June 6-10, 1999, Vancouver, Canada.
53. Z. Antoniou, I. Stavrakakis, "Deadline Credit Scheduling Policy for Prerecorded Sources," IEEE GLOBECOM'99, Dec. 5-9, 1999, Rio, Brazil.
54. C. Santivanez, I. Stavrakakis, "A Framework for a Multimode Routing Protocol for MANET Networks," IEEE WCNC'99, Sep. 18-22, 1999, N. Orleans.
55. F. Abi-Nassif, W. Lee, I. Stavrakakis, "Robust Offered Load Estimation for Dynamic Bandwidth Management in Contention-Based Multiple Access Networks," Applied Telecommunications Symposium (ATS'2000), April 16-20, 2000, Washington, D.C, USA.
56. Z. Antoniou, I. Stavrakakis, "Efficient End-to-End Transport of Soft Real-Time Applications," pp. 470-482, IFIP Networking'2000, May 14-19, 2000, Paris, France.
57. P. Balaouras, I. Stavrakakis, L. Merakos, "Potential and Limitations of a Teleteaching Environment based on H.323 Audio-Visual Communication Systems," TERENA Networking Conference 2000 (TNC 2000), May 2000, Lisbon, Portugal.
58. N. Karelos, N. Laoutaris, P. Balaouras, I. Stavrakakis, "Endsystem Performance Issues for Continuous Media Streaming Applications," 8th IFIP Workshop on Performance Modeling and Evaluation of ATM and IP Networks (IFIP ATM & IP 2000), July 17-19, 2000, Ilkley, West Yorkshire, U.K.
59. Konstantinos Oikonomou, Ioannis Tenidis and Ioannis Stavrakakis, "A Mechanism to Enable Differentiated Services QoS in HIPERPLAN/2," 8th IEEE International Conference on Telecommunications (ICT'01), Bucharest, Romania, June 2001.
60. N. Laoutaris, I. Stavrakakis, "Adaptive Playout Strategies for Packet Video Receivers with Finite Buffer Capacity," IEEE International Conference on Communications (ICC'01), June 11-14, 2001, Helsinki.
61. A. Panagakis, I. Stavrakakis, "Optimal Call Admission Control under Generalized Processor Sharing Scheduling," Ninth International Workshop on Quality of Service (IWQoS'2001), June 6-8, 2001, Karlsruhe, Germany.

62. P. Balaouras, I. Stavrakakis, "A Multi-State Congestion Control Scheme for Rate Adaptable Unicast Continuous Media Flows," 2001 International Workshop on Digital Communications" (IWDC'2001), Sept. 17-20, Taormina, Italy. **(invited paper)**
63. N. Laoutaris, .G. Boukeas, I. Stavrakakis, "Design of Optimal Playout Schedulers for Packet Video Receivers," Second International Workshop on Quality of Future Internet Services (QofIS'2001), Sept. 24-26, 2001, Coimbra, Portugal. **[Best Ph.D. Student Paper Award]**
64. C. Santivanez, R. Ramanathan, I. Stavrakakis, "Making Link-State Routing Scale for Ad Hoc Networks," MobiHoc 2001, Oct. 4-5, 2001, Long Beach, CA, USA.
65. C. Santivanez, B. McDonald, I. Stavrakakis, R. Ramanathan, "On the Scalability of Ad hoc Routing Protocols," IEEE INFOCOM'02, N. York, USA.
66. E. Balafoutis, A. Panagakis, N. Laoutaris, I. Stavrakakis, "The Impact of Replacement Granularity on Video Caching," IFIP Networking 2002, May 19-24, 2002, Pisa, Italy.
67. P. Balaouras, I Stavrakakis, "A Congestion Control Scheme for Continuous Media Streaming Applications," Third International Workshop on Quality of Future Internet Services (QofIS'2002), Oct. 16-18, 2002, Zurich, Switzerland.
68. A. Panagakis, I. Stavrakakis, "Generalized Processor Sharing Enhancements through Session Decomposition," IEEE/IFIP Net-Con'02 (Network Control and Engineering for QoS, Security and Mobility), Oct. 23-25, 2002, Paris, France.
69. E. Balafoutis, I. Stavrakakis, "Proxy Caching and Video Segmentation Based on Request Frequencies and Access Costs," 10th IEEE International Conference on Telecommunications (ICT' 2003), February 23 - March 1, 2003 Tahiti, Papeete - French Polynesia.
70. A. Vaios, K. Oikonomou, I. Stavrakakis, "A Centralized Routing Scheme Supporting Ad Hoc Networking in Dual Mode HIPERLAN/2 System," IST Mobile Summit 2003, 15-18 June, Aveiro, Portugal.
71. K. Oikonomou, A. Vaios, S. Simoens, P. Pellati and I. Stavrakakis, "Centralized Ad-Hoc Network Architecture (CANA) Based on an Enhanced HiperLAN/2 System," PIMRC 2003, 7-10 September, Beijing, China.
72. K. Oikonomou, I. Stavrakakis, "A Probabilistic Topology Unaware TDMA Medium Access Control policy for Ad-Hoc Environments," Personal Wireless Communications (PWC) 2003, September 23-25, 2003, Venice, Italy.
73. A. Panagakis, E. Balafoutis and I. Stavrakakis, "Study of the capacity of multi-hop cellular networks," Quality of Future Internet Services (QofIS) 2003, 1-3 October 2003, Stockholm, Sweden.
74. N. Laoutaris, V. Zissimopoulos, I. Stavrakakis "Memory Allocation for Hierarchical Content Distribution Systems," *IEEE HSN 2003*, 30 March 2003, San Francisco. (*)
75. A. Panagakis, E. Balafoutis and I. Stavrakakis, "A multi-channel multi-hop architecture for cellular networks," *IEEE HSN 2003*, 30 March 2003, San Francisco, California. (*)
76. K. Oikonomou, I. Stavrakakis, "Throughput Analysis of a Probabilistic Topology-Unaware TDMA MAC Policy for Ad-Hoc Networks," Quality of Future Internet Services (QofIS), 1-3 October, 2003, Stockholm, Sweden.
77. A. Vaios, N. Zinelis, I. Stavrakakis, "Employing Ad Hoc Networks in WLANs: Trade offs and Insights," International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networking (NEW2AN'04), Feb. 2-6, 2004, St. Petersburg, Russia.
78. Athanasios Vaios, Konstantinos Oikonomou, Nikolaos Zinelis, Konstantinos Ntagkounakis and Ioannis Stavrakakis, "On Supporting Dual-Mode HiperLAN/2: Architecture and Overhead," 13th IST Mobile & Wireless Communications Summit 2004, June 27-30, Lyon, France.
79. Nikolaos Laoutaris, Vassilios Zissimopoulos, Ioannis Stavrakakis, "Storage Capacity Allocation Algorithms for Hierarchical Content Distribution," IFIP Networking 2004, May 9-14, 2004, Athens, Greece.
80. Nikolaos Laoutaris, Sofia Syntila, Ioannis Stavrakakis, "Meta Algorithms for Hierarchical Web Caches," IEEE IPCCC, April 2004, Phoenix, Arizona.
81. Konstantinos Oikonomou, Nikos Pronios and Ioannis Stavrakakis, "Performance Analysis of TDMA MAC Schemes for Ad-Hoc Networks with Topology Control," The Third Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2004), June 27-30, 2004, Bodrum, Turkey.
82. Konstantinos Oikonomou, Konstantinos Ntagkounakis, Athanasios Vaios, Nikolaos Zinelis and Ioannis Stavrakakis, "Layered Architecture and Modules of CANA Supporting Dual Mode HiperLAN/2,"

International Workshop on Wireless Ad-Hoc Networks (IWWAN) 2004, 31st May - 3rd June, 2004, Oulu, Finland.

83. Konstantinos Oikonomou, Athanasios Vaios, Pietro Pellati, Sebastien Simoens and Ioannis Stavrakakis, "A Dual-Band HiperLAN/2-based Architecture for Indoor Hotspot Applications," International Workshop on Wireless Ad-Hoc Networks (IWWAN) 2004, 31st May - 3rd June, 2004, Oulu, Finland.
84. Konstantinos Oikonomou and Ioannis Stavrakakis, "Load Analysis of Topology-Unaware TDMA MAC Policies for Ad-Hoc Networks," Quality of Future Internet Services (QoFIS), September 29 - 1 October 2004, Barcelona, Spain.
85. Nikolaos Laoutaris, Antonios Panagakis, Ioannis Stavrakakis, "Content Distribution through Autonomic Content and Storage Management", the 1st IFIP TC6 WG6.6 International Workshop on Autonomic Communication (WAC 2004), October 18 – 19, 2004, Berlin, Germany.
86. Cesar Santivanez, Ioannis Stavrakakis, "Towards Adaptable Ad Hoc Networks: the Routing Experience", the 1st IFIP TC6 WG6.6 International Workshop on Autonomic Communication (WAC 2004), October 18 – 19, 2004, Berlin, Germany.
87. Nikolaos Laoutaris, Vassilios Zissimopoulos, Ioannis Stavrakakis, "Storage Capacity Allocation Algorithms for Hierarchical Content Distribution," in IFIP Net-Con 2004, Palma de Mallorca, Spain.
88. K. Oikonomou and I. Stavrakakis, "Power Efficiency Analysis for Topology-Unaware TDMA MAC Policies in Ad-Hoc Networks," 38th Hawaii International Conference on System Sciences, HICSS-38, January 3-6, 2005, Big Island, Hawaii.
89. Nikolaos Laoutaris, Orestis Telelis, Vassilios Zissimopoulos, Ioannis Stavrakakis, "Local Utility Aware Content Replication," in IFIP Networking 2005, Waterloo, Canada, May 2005.
90. K. Oikonomou and I. Stavrakakis, "Throughput Analysis of an Aloha-Based MAC Policy for Ad Hoc Networks", (poster) The Fourth Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2005), June 21-24, 2005, Il de Porquerolles, France.
91. N. Laoutaris, G. Smaragdakis, A. Bestavros, I. Stavrakakis, "Mistreatment in Distributed Caching Schemes: Causes and Implications", IEEE INFOCOM'06, April 23-29, 2006, Barcelona, Spain.
92. Georgios Smaragdakis, Nikolaos Laoutaris, Ibrahim Matta, Azer Bestavros, Ioannis Stavrakakis, "A Feedback Control Approach to Mitigating Mistreatment in Distributed Caching Groups," IFIP Networking 2006, May 15-19, 2006, Coimbra.
93. K. Oikonomou, I. Stavrakakis, "Scalable Service Migration: The Tree Topology Case", MEDHOC2006, June 14-17, Lipari, Sicily, Italy.
94. L. Tzevelekas, I. Stavrakakis, "Directed budget-Based Clustering for Wireless Sensor Networks", LOCAN'06, 2nd International Workshop on Localized Communication and Topology Protocols for Ad hoc Networks, Oct 9-12, 2006, Vancouver, Canada.
95. C. Vassilakis, N. Laoutaris, I. Stavrakakis, "On the Benefits of Synchronized Payout in Peer to Peer Streaming", CoNEXT'06 student Workshop, poster presentation, Dec. 4, 2006, Lisbon.
96. A. Panagakis, A. Vaios, I. Stavrakakis, "On the Effects of Cooperation in DTNs", IEEE COMSWARE, Jan. 8-12, 2007, Bangalore, India (Invited Paper).
97. A. Panagakis, A. Vaios, I. Stavrakakis, "Study of two-hop message spreading in DTNs", 5th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), April 16-20, 2007, Limassol, Cyprus.
98. N. Laoutaris, G. Smaragdakis, K. Oikonomou, I. Stavrakakis, A. Bestavros, "Distributed Placement of Service Facilities in Large-Scale Networks", IEEE INFOCOM'07, May 6-12, 2007, Anchorage, Alaska.
99. K. Oikonomou, I. Stavrakakis, "Performance Analysis of Probabilistic Flooding Using Random Graphs", in IEEE Autonomic Opportunistic Communications workshop (AOC), June 18, 2007, Helsinki.
100. E. Jaho, I. Jaho, I. Stavrakakis, "Distributed Selfish Replication under Node Churn," poster session, MED-HOC-NET'07, June 13-15, 2007, Corfu, Greece.
101. L. Tzevelekas, I. Stavrakakis, "Random Walks with Jumps in Wireless Sensor Networks", poster session, MED-HOC-NET'07, June 13-15, 2007, Corfu, Greece.
102. D. Kogias, K. Oikonomou, I. Stavrakakis, "Service Discovery Using Random Walkers' Diversion", poster session, MED-HOC-NET'07, June 13-15, 2007, Corfu, Greece.
103. C. Ntantogian, C. Xenakis, I. Stavrakakis "Efficient Authentication for Users Autonomy in Next Generation All-IPNetworks", In proc. Workshop on Technologies for Situated and Autonomic Communications (SAC) in conjunction with the 2nd International Conference on Bio-Inspired Models of Network, Information, and Computing Systems, (BIONETICS 2007), Budapest, Hungary, Dec 2007.

104. C. Ntantogian, C. Xenakis, I. Stavrakakis, "Reducing the User Authentication Cost in Next Generation Networks", Fifth Annual Conference on Wireless On demand Network Systems and Services (IFIP/IEEE WONS 2008), Garmisch-Partenkirchen, Germany, Jan 2008.
105. C. Vassilakis, N. Laoutaris, I. Stavrakakis, "The Impact of Playout Policy on the Performance of P2P Live Streaming...or how not to kill your P2P advantage", To appear in the Proceedings of the 15th Annual SPIE/ACM Multimedia Computing and Networking (MMCN '08), San Jose, California, Jan. 2008.
106. Dimitris Kogias, Konstantinos Oikonomou and Ioannis Stavrakakis, "Replicated Random Walks for Service Advertising in Unstructured Environments", to appear in the 7th IFIP Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net), 23-27 June 2008, Palma de Mallorca, Spain.
107. I. Koukoutsidis, E. Jaho, I. Stavrakakis, "Cooperative Content Retrieval in Nomadic Sensor Networks", IEEE Infocom MOVE Workshop 2008 (MOBILE Networking for Vehicular Environments), Phoenix, Arizona, USA, 18 April 2008.
108. Dimitris Ztoupis, Kyriakos Zarifis, Christos Xenakis, Ioannis Stavrakakis, "Towards a Security Framework for Established Autonomous Network", IEEE International Symposium on Wireless Pervasive Computing, Santorini, Greece, 7-9 May 2008.
109. Eva Jaho, Ioannis Koukoutsidis, Ioannis Stavrakakis, and Ina Jaho, "Cooperative Replication in Content Networks with Nodes under Churn", IFIP Networking '08, Singapore, May 5-9, 2008.
110. K. Oikonomou, I. Stavrakakis, A. Xydias, "Scalable Service Migration in General Topologies", in IEEE WoWMoM (World of Wireless, Mobile and Multimedia Networks) Workshop on Autonomic and Opportunistic Communications (AOC 2008), June 23, 2008, Newport Beach, CA.
111. S. M. Allen, M. Conti, J. Crowcroft, R. Dunbar, P. Lio, J. F. Mendes, R. Molva, A. Passarella, I. Stavrakakis, R. M. Whitaker, "Social Networking for Pervasive Adaptation", Workshop on Pervasive Adaptation (PERADA), 2nd IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO'08), Oct. 20-24, 2008, Venice, Italy.
112. Rubén Cuevas, Eva Jaho, Carmen Guerrero, and Ioannis Stavrakakis, "OnMove: A Protocol for Content Distribution in Wireless Delay Tolerant Networks based on Social Information", poster at student workshop, CoNEXT'09, Dec 9-12, 2008, Madrid
113. C. Xenakis, D. Apostolopoulou, A. Panou, I. Stavrakakis, "A Qualitative Risk Analysis for the GPRS Technology", In Proc. IEEE/IFIP International Conference on Embedded and Ubiquitous Computing (EUC-08), December 17-20, 2008, Shanghai, China.
114. D. Kogias, K. Oikonomou, I. Stavrakakis, "Study of Randomly Replicated Random Walks for Information Dissemination Over Various Network Topologies", Sixth Annual Conference on Wireless On demand Network Systems and Services (IFIP/IEEE WONS 2009), Feb. 2-4, 2009, Snowbird, Utah, USA.
115. E. Jaho, I. Stavrakakis, "Joint Interest- and Locality-Aware Content Dissemination in Social Networks", Sixth Annual Conference on Wireless On demand Network Systems and Services (IFIP/IEEE WONS 2009), Feb. 2-4, 2009, Snowbird, Utah, USA.
116. L. Tzevelekas, I. Stavrakakis, "Improving Partial Cover of Random Walks in Large Scale Wireless Sensor Networks", 3rd IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC'09), 15 June 2009, Kos, Greece.
117. V. Manetti, R. Canonico, G. Ventre, I. Stavrakakis, "System-level Virtualization and Mobile IP to Support Service Mobility", Workshop on Design, Optimization and Management of Heterogeneous Networked Systems (DOM-HetNetS), in conjunction with the 38th Conference on Parallel Processing (ICPP), Sept 22-25, 2009, Vienna, Austria.
118. P. Pandazopoulos, I. Stavrakakis, A. Passarella, M. Conti, "Efficient Social-aware Content Placement for Opportunistic Networks", The Seventh International Conference on Wireless On-demand Network Systems and Services (IFIP/IEEE WONS), Feb. 3-5, 2010. Kranjska Gora, Slovenia.
119. K. Oikonomou, D. Kogias, I. Stavrakakis, "A Study of Information Dissemination Under Multiple Random Walkers and Replication Mechanisms", Second ACM/SIGMOBILE International Workshop on Mobile Opportunistic Networking (MobiOpp), Feb. 22-23, 2010, Pisa, Italy.
120. L. Tzevelekas, I. Stavrakakis, "Sink mobility schemes for data extraction in large scale WSNs under single or zero hop data forwarding", 16th European Wireless Conference, Apr. 12-15, 2010, Lucca, Italy.
121. E. Jaho, I. Stavrakakis, "Social Similarity as a Driver for Selfish, Cooperative and Altruistic Behavior", 4th IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC'10), June 14, 2010, Montreal.

122. C. Panos, C. Xenakis, I. Stavrakakis, "A novel intrusion detection system for MANETS", International Conference on Security and Cryptography(SECURITY'10), July 26-28, 2010, Athens, Greece.

Book chapters

1. P. Balaouras, I. Stavrakakis, "Multimedia Transport Protocols for Wireless Networks", chapter in "Emerging Wireless Multimedia: Services & Technologies", ed.: N. Passas, A. Salkintzis, J. Wiley, 2005.
2. G. Karlsson (Ed.), J. Roberts (Ed.), I. Stavrakakis (Ed.), A. Alves, S. Avellone, F. Boavida, S. D'Antonio, M. Esposito, V. Fodor, M. Gargiulo, J. Harju, Y. Koucheryavy, F. Li, I. Marsh, I. Mas Ivars, D. Moltchanov, E. Monteiro, A. Panagakis, A. Pescapé, G. Quadros, S. P. Romano, G. Ventre, "Traffic Management", in Michael Smirnov et al. (Eds.), Quality of Future Internet Services - COST Action 263 Final Report, Lecture Notes in Computer Science, Vol. 2856, p 10-79, Springer-Verlag, Heidelberg, Germany, 2003.

Other Publications

1. Invited article with title "Convergence in Telecommunications: a perspective through the past and the future trends", Special Issue on Convergence in Telecommunications, The Greek Economist – Kathimerini Magazine, No. 35, Jan. 2007

Workshop / Panel / Keynote /Research Forum Presentations (no proceedings)

1. I. Stavrakakis, "Autonomicity and Behavioural Drivers (or optimizing the socio-tech layers) in Content Distribution", 1st Nordic Workshop on Cross-Layer Optimization in Wireless Networks, April 7-9, 2010, Levi-Lapland, Finland.
2. I. Stavrakakis, "Autonomicity and Relevance: Drivers of Future (Content) Networking "Science"", in the context of the panel "From Computer Communication Networks to Socio-technical Networks – Network Science in Communication Network Design", INFOCOM Network Science Wkshp (NetSciCom'10), March 19, 2010, San Diego, USA. <http://netscom2010.engineering.asu.edu/program.html>
3. I. Stavrakakis, "Autonomicity and Behavioural drivers of the Future Internet", in the context of the panel on Future Internet, held at the 3rd IEEE Workshop on Enabling the Future Service-Oriented Internet: Towards Socially-Aware Networks, in conjunction with IEEE GLOBECOM 2009, Honolulu, HI, USA, December 4, 2009. <http://www.nprg.ncsu.edu/events/EFSOI/workshop09/program.htm>
4. I. Stavrakakis, "The Internet of the Future", presentation in session "WP Objective 1.1, WP 2009-2010: Network of the Future", ICT'2008, Nov 25-27, 2008, Lyon. **[invited]** http://ec.europa.eu/information_society/events/cf/item-display.cfm?id=852
5. I. Stavrakakis, "Designing for SCALP: Small Contributions of Autonomic Large Populations", COST/NSF Workshop on Future Internet, April 19-20, 2007, Berlin.**[invited]**
6. I. Stavrakakis, "Self-preservation in Autonomic Networking: Blending and Balancing selfishness and Cooperation", BIGG Workshop, Nov 28-29, 2006, Sophia-Antipolis, France **[invited]**
7. I. Stavrakakis, "Towards a New Information Moving Infrastructure: Challenges and Paradigms", Korea Conference on Innovative Science and Technology (KCIST): Internet of the Future, July 20-22, 2006, Seoul, Korea. **[invited]**
8. I. Stavrakakis, "Will Autonomicity Reduce Network Management Complexity?", Second IFIP Workshop on Autonomic Communications (WAC2005), Oct. 3-5, Vouliagmeni-Athens, Greece. **[invited panel presentation]**

9. I. Stavrakakis, "Autonomic Networks: New Ideas and Challenges for the Research Community", IFIP Networking 2005 Conference, May 2-6, 2005, Waterloo, Canada. **[invited panel presentation]**
10. I. Stavrakakis, "Is Autonomic Communication the Networking Paradigm for the future?", Second Working Conference on Wireless On-demand Network Systems (WONS'05), Jan 19-21, 2005, St. Moritz. **[invited panel presentation]**
11. I. Stavrakakis, "Looking into the Crystal Ball of Networking - What is Next in Networking", IEEE ICNP2003, Nov. 4-7, 2003, Atlanta. **[invited panel presentation]**
12. I. Stavrakakis, A. Vaios, "The Broadway project: the way to broadband access at 60 GHz", European Science Foundation supported Exploratory Workshop "Is Mobile Ad Hoc Networking part of the future of mobile networking in Europe?", October 10-12, 2002, Monterosso al Mare – La Spezia, Italy. **[invited]**
13. A. Vaios, I. Stavrakakis, "Ad hoc routing extensions in WLANS", European Science Foundation supported Exploratory Workshop "Is Mobile Ad Hoc Networking part of the future of mobile networking in Europe?", October 10-12, 2002, Monterosso al Mare – La Spezia, Italy. **[invited]**
14. I. Stavrakakis, P. Balaouras, "Rate Adaptable Continuous Media Transmission over IP", COST263 meeting (Quality of future Internet Services), June 5, 2001, Karlsruhe, Germany.
15. I. Stavrakakis, "Toward a New Paradigm for "Real Time" Networking", International Workshop on High Speed Networking, May 21-24, 2000, Balatonfured, Hungary. **[invited]**
16. I. Stavrakakis, "Memory, a Promising Vehicle for Quality "Real Time" Networking", USA NSF sponsored Workshop on Network Quality Engineering, Feb. 25-26, 2000, ASU, Phoenix, AZ, USA. **[invited panel presentation]**
17. I. Stavrakakis, Z. Antoniou, "Efficient Transport of Soft Real-Time Applications", 1999 IFIP WG6.3 Workshop, Aug. 29, Sept. 1, 1999, Rethymnon, Greece.
18. I. Stavrakakis, J. Capone, "On the Achievability of Diversified QoS Vectors" Second Workshop of the IFIP TC6a WG6.3 on the Performance of Communication Systems, Oct. 13-14, 1996, Balatonfured, Hungary.
19. J. Capone, I. Stavrakakis, "Delivering Diverse Delay/Dropping QoS Requirements in a TDMA Environment", ITC Mini-Seminar on Performance Modeling and Design of Wireless/PCS Networks, Oct. 3, 1996, Boston, MA.
20. I. Stavrakakis, "Study of Some Rate Control and Buffer Management Schemes: Optimality and Fairness", First Workshop of the IFIP TC6 Task Force on the Performance of Communication Systems, Jan. 23-24, 1995, St. Thomas.
21. I. Stavrakakis, "Traffic Modeling and Regulation (Shaping) for High-Speed Networks", Non-Linear Optics Communication Mountain Workshop, April 12-13, 1994, Breckenridge, CO.
22. I. Stavrakakis, "Traffic Modeling and Regulation (Shaping) for High-Speed Networks", Non-Linear Optics Communication Mountain Workshop, April 12-13, 1994, Breckenridge, CO.
23. I. Stavrakakis, "Toward a Relief-Based Design of Congestion Avoidance Mechanisms for ATM", TRIO Workshop, Aug. 31, 1993, Queen's University, Kingston, Ontario. **[invited]**
24. I. Stavrakakis, "A Recursive Equations Approach to Counting (Rare) Events in Communication Networks", IEEE International Workshop on Computer-Aided Modeling, Analysis and Design of Communication Links and Networks, Sept. 29 – Oct.2, 1992, Montebello, Quebec.
25. I. Stavrakakis, "Effective modeling for Traffic Processes and Resource Allocation Policies in Packet Communication Networks", 21st Annual IEEE Communication Theory Workshop, June 1991, Rhodes, Greece.

Recent Seminars

1. I. Stavrakakis, "Autonomic Content Networking", Seminar at the Department of Electrical and Computer Engineering, Univ. of Arizona, Tucson, USA, April 10, 2008
2. I. Stavrakakis, "Telecom Convergence and Autonomic Networking", Ionian University of Greece, March 14, 2007, Corfu.
3. I. Stavrakakis, "Distributed Selfish Replication/Caching for Content Networks", KAIST Seminar Series, July 19, 2006, KAIST, Korea.

4. I. Stavrakakis, "Content Distribution through Autonomic Content and Storage Management: Distributed Selfish Replication Example", seminar, University of Cyprus, Oct. 13, 2006, Cyprus.
5. I. Stavrakakis, "Content Distribution through Autonomic Content and Storage Management: Distributed Selfish Replication Example", seminar, Delft University, Sept. 23, 2005, Delft.
6. I. Stavrakakis, "On Multi-Hop Extensions of WLANs: Trade-offs and Insights", seminar, KTH, Sweden, March 5, 2004.

Recent Future Research Direction/Funding Forum Participation / Presentations

1. Panelist in the "Broadband Forum Panel", 3rd Broadband Networks and Services: "Innovation in Broadband Networks and Services", June 6-8, 2008, Grand Resort Lagonissi, Athens, Greece. <http://www.eett.gr/conference2008/html/programme-eng.htm>
2. Coordinator and speaker in the panel on "Digital Content and Internet Applications", Broadband Forum Workshop, Feb. 26, 2008, Caravel Hotel, Athens.
3. Coordinator of the EETT (Greek National Telecommunications Authority) Working Group on "Digital Content and Internet Applications", June 2007 – June 2008.
4. I. Stavrakakis, "Feedback from the Consultation Meeting "Internet of the Future" 31.1.2008", Consultation meeting on Future Internet Research and Experimentation (FIRE), Feb. 12, 2008, Brussels
5. Information day on the "Future of Internet", Jan. 31, 2008, Brussels (rapporteur)
6. I. Stavrakakis, "Content- and multi-resource –centric Networking – The Disappearing Communications Network", Presentation at the "Shaping Future FET Proactive Initiatives Workshop", Sept. 20-21, 2007, Brussels.
7. Scientific FIRE Preparatory Group meeting, April 24-25, 2007, Brussels.
8. Situated and Autonomic Communications (SAC) and Scientific FIRE Preparatory Group meeting, March 6-7, 2007, Zurich
9. Ioannis Stavrakakis, "Dissecting the Initiative", FIRE Scientific Group meeting, Feb 14-15, 2007, Brussels http://www.panlab.net/fileadmin/documents/FIRE/20070214-stat20_en.pdf
10. Information day on the "Future of Internet", Dec. 15, 2006, Brussels (rapporteur and booklet editor)
11. Round Table Discussion: Communication Networks of the Future Organized by the European Commission DG INFSO "Communication technologies", Brussels, <http://cordis.europa.eu/ist/ct/neweve/pubs-reports.htm#2006>, Mar. 29, 2006. Talk: "Information Moving Infrastructure: Paradigms and Challenges".
12. I. Stavrakakis, "Situated and Autonomic Communication: Challenges and Opportunities", IST-FET Information Day, Jan. 13, 2005, Brussels. **[invited keynote]**
13. I. Stavrakakis, "The Role of Academia in Autonomic Communication Research", Autonomic Communication Forum, Inauguration Meeting, Dec. 8, 2004, Brussels. **[invited keynote]**
14. I. Stavrakakis, "Principles of Autonomic Communication Algorithms and Protocols", IST2004, Nov. 17, 2004, Hague. **[invited]**

FUNDED RESEARCH PROJECTS

European Funded Research Projects (2000-)

- Title: "RECOGNITION: Relevance and cognition for self-awareness in a content-centric Internet". Program: Information Societies Technology – Future Emerging Technologies (IST-FET). Funding Agency: European Union (EU). Period: 1/10/2010 -30/09/2013. Amount (for UoA): 310,518 Euros. Participating Organizations: Cardiff University (CU), Italian Research Council (CNR), University of Cambridge (UCAM), National and Kapodistrian University of Athens (NKUA), Institut Eurécom (EUR), Università Degli Studi Di Firenze. [Principal Investigator for UoA].

- Title: “Retune: Resilience of Opportunistic Networks to Node Misbehaviors”, Program: EU Marie Curie Fellowship Program, Period: 6/2010 – 05/2012, Amount: 160,000 Euros.
- Title: “SOCIALNETS: Social Networking for Pervasive Adaptation”, Program: Information Societies Technology – Future Emerging Technologies (IST-FET). Funding Agency: European Union (EU). Period: 1/2/2008 – 31/1/2011. Amount (for UoA): 386,450 Euros. Participating Organizations: Cardiff University (CU), Italian Research Council (CNR), University of Cambridge (UCAM), National and Kapodistrian University of Athens (NKUA), University of Oxford (OXF), University of Aveiro (UAVR) Institut Eurécom (EUR). [Principal Investigator for UoA].
- Title: “CONTENT: Content Networks and Services for Home Users” (Network of Excellence), Program: Information Societies Technology – IST. Funding Agency: European Union (EU). Period: 07/2006 – 06/2009. Amount (for UoA): 223,722 Euros (based on activity). Participating Organizations: 11 Universities from Europe. [Principal Investigator for UoA].
- Title: “BIONETS: BIOlogically-inspired autonomic NETworks and Services”. Program: Information Societies Technology – Future Emerging Technologies (IST-FET). Funding Agency: European Union (EU). Period: 1/1/2006 – 31/12/2009. Amount (for UoA): 300,112 Euros. Participating Organizations: CREATE-NET + IIT-CNR + University of Trento (CN, CN-CNR, CN-UNITN), Universität Basel (UBASEL), Technische Universität Berlin (TUB), Hamburger Informatik Technologie-Center e.V. (UNIHH), RWTH Aachen University (RWTH), Imperial College London (IC), Budapest University of Technology and Economics (BUTE), Nokia corporation (NOKIA), Valtion Teknillinen Tutkimuskeskus (VTT), Institut National de Recherche en Informatique et Automatique (INRIA), National and Kapodistrian University of Athens (NKUA), Telecom Italia Learning Services SpA (TILS), London School of Economics and Political Science (LSE), Sun Microsystems Iberica SA (SUN). [Principal Investigator for UoA].
- Title: “ANA: Autonomic Network Architectures”. Program: Information Societies Technology – Future Emerging Technologies (IST-FET). Funding Agency: European Union (EU). Period: 1/1/2006 – 31/12/2009. Amount (for UoA): 438,000 Euros. Participating Organizations: Eidgenoessische Technische Hochschule Zurich, University of Basel, NEC EUROPE LTD, University of Lancaster, Fraunhofer Gesellschaft zur Foerderung der angewandten Forschung, Université de Liege, Université Paris VI Pierre et Marie Curie, National and Kapodistrian University of Athens, Universitetet I Oslo, Telekom Austria, University of Waterloo. [Principal Investigator for UoA].
- Title: “CASCADAS: Component-ware for Autonomic, Situation-aware Communications And Dynamically Adaptable Services”. Program: Information Societies Technology – Future Emerging Technologies (IST-FET). Funding Agency: European Union (EU). Period: 1/1/2006 – 31/12/2008. Amount (for UoA): 370,720 Euros. Participating Organizations: Telecom Italia S.p.A., British Telecommunications, Budapest University of Technology and Economics BUTE, Fraunhofer Institute for Open Communication Systems FOKUS, Imperial College London ICL, INSTITUT EURECOM EUR, Politecnico di Milano - Dipartimento di Elettronica e Informazione, National and Kapodistrian University of Athens NKUA, Universität Kassel UNIK, Université Libre de Bruxelles ULB, Università di Modena e Reggio Emilia UNIMORE, Università degli Studi di Trento UNITN, University of Ulster UU, Consorzio per l'innovazione nella gestione delle imprese e della PA.
- Title: “CoMig: The Content Migration (CoMig) paradigm for Internet content dissemination”, Program: EU Marie Curie Outgoing Fellowship Program, Period: 3/2005 – 9/2006, Amount: 109,000 Euros.
- Title: “ACCA: Autonomic Communication Coordination Action”. Program: Information Societies Technology – IST, Future Emerging Technologies. Funding Agency: European Union (EU). Period: 10/2004 – 03/2006. Amount (for UoA): 78,000 Euros. Participating Organizations: 11 Universities from Europe. [Principal Investigator for UoA].
- Title: “E-NEXT: Network of Excellence in Emerging Networking Experiments and Technologies”, Program: Information Societies Technology – IST. Funding Agency: European Union (EU). Period: 01/2004 – 06/2006. Amount (for UoA): 87,800 Euros. Participating Organizations: 41 Universities from Europe. [Principal Investigator for UoA].
- Title: “E-NET : Emerging Networking (Network of Excellence)”. Program: Information Societies Technology – IST. Funding Agency: European Union (EU). Period: 07/2002 – 12/2003. Amount (for UoA): 24,000 Euros. Participating Organizations: 14 Universities from Europe. [Principal Investigator for UoA].

- Title: “BROADWAY (Broadway, the way to broadband access at 60GHz)”, Program: Information Societies Technology – IST. Funding Agency: European Union (EU). Period: 01/02 – 12/04. Amount (for UoA): 398,227 Euros. Participating Organizations: Motorola SA (France), IMST GmbH (Germany), Technical University of Dresden (Germany), Netherlands Organization for Applied research (Netherlands), Intracom SA (Greece), University of Athens (Greece). [Principal Investigator for UoA].
- Title: “A Video Gateway between the Next Generation Broadband Internet and the Current Narrow Band Internet for Live and On-Demand Access (VideoGateway)”. Program: Information Societies Technology – IST. Funding Agency: European Union (EU). Period: 01/00 – 12/02. Amount (for UoA): 315,378 Euros. Participating Organizations: Optibase (Israel), Matra Systemes & Information (France), T-Nova (Germany), CSELT (Italy), Teracom (Sweden), University of Athens (Greece). [Principal Investigator for UoA].

Greek Funded Research Projects (2000-)

- Title: “Opportunistic Adjustable Routing Mechanisms for Wireless Networks”. Program: International Cooperation. Funding Agency: General Secretariat for Research and Technology (G.S.R.T) of Greece. Period: 03/06 – 03/08. Amount (for UoA): 11,740 Euros. Participating Organizations: University of Pisa (UoP), Pisa, Italy, University of Athens (Greece). ” [Principal Investigator for UoA]
- Title: “Ad-hoc Wireless and Sensor Networking: Algorithms, protocols and architectural studies”. Program: PENED2005. Funding Agency: General Secretariat for Research and Technology (G.S.R.T) of Greece. Period: 2/2005 – 12/2008. Amount: 215,000 Euros. Contributing/participating Organizations : INTRACOM.
- Title: “Short-Range, Multi-hop extensions WLANs”. Funding Agency: Greek Ministry of Education, program Pythagoras II. Period: 15/2005-12/2006. Amount: 70,000 Euros.
- Title: “Data Distribution in Wired/wireless Networks”. Funding Agency: Greek Ministry of Education, program Hrakleitos”,. Period: 1/2004-11/2005. Amount: 34,000 Euros.
- Title: “Traffic Management of Video Streams over the Internet”. Program: International Cooperation. Funding Agency: General Secretariat for Research and Technology (G.S.R.T) of Greece. Period: 07/02 – 06/04. Amount (for UoA): 17,870 Euros. Participating Organizations: CNR – Istituto CNUCE, Pisa, Italy, University of Athens (Greece). ” [Principal Investigator for UoA].
- Title: “Mechanisms for Networked Multimedia Support”, University of Athens, Research Committee. Period: 2001. Amount: 500,000 GRD. [Principal Investigator].
- Title: “Resource Management and Traffic Control for Wide Area Networks under QoS Constraints”. Program: EPET II. Funding Agency: General Secretariat for Research and Technology (G.S.R.T) of Greece. Period: 01/00 – 09/01. Amount (for UoA): 13,680,000 GRD. Participating Organizations: Greek National Centre for Scientific research (NCSR) Demokritos, National Technical University of Athens (NTUA), University of Athens (Greece). ” [Principal Investigator for UoA].
- Title: “Mechanisms for Networked Multimedia Support”, University of Athens, Research Committee. Period: 2000. Amount: 1,000,000 GRD. [Principal Investigator].

U.S.A. Funded Research Projects (1990-99)

- U.S.A. National Science Foundation, Research Initiation Award. Amount: \$60,000. Title: “Performance Analysis of Communication Networks under m|τ|MM|r|B Packet Arrival Processes”. [Principal Investigator].
- U.S.A. Department of Defense, Advanced Research Project Agency (ARPA). Amount: \$385,677. Title: “Development of User-Matched/Network-Friendly Traffic Profiles for Congestion Control in High Speed Fiber Optics Networks”. [Principal Investigator].
- GTE Government Systems Corporation. Amount: \$250,000. Period: 8/1/91 – 7/31/96. Title: “Research and Curriculum Development in Communication Networks”. [Principal Investigator after 9/94].
- Northeastern University, College of Engineering. Amount: \$5,000. Title: “Student Support for Research on Resource Management for Diverse Quality of Service (QoS) Delivery in Communication Networks”. [Principal Investigator].

- U.S.A. National Science Foundation, Amount: \$335,319. Period: 9/1/96 – 8/31/1999. Title: “Time-Constant-Based Traffic Control and Multiplexing for High-Speed Networks”. [Principal Investigator].
- Motorola, Inc., Amount:\$8,000. Period: 3/15/98-9/15/98. Title: “Research on Protocols for Broadband Access” [Principal Investigator].
- BBN Technologies (GTE Internetworking), Amount: \$28,324. Period: 11/98-9/99. Title: “Density Adaptive Routing for the DAWN Project” [Principal Investigator].
- U.S.A. Department of Defense, Advanced Research Project Agency (ARPA). Amount: \$200,000. Period: 1993-1996. Title: “Multi-scale Digital Communications”, [One of 6 Co-Principal Investigators since 9/94].
- Italian National Research Council (CNR). Amount: 45,000,000 Italian Lira. Period: 1995-1996. Title: “Real-Time Traffic Management in High-speed Integrated Services Networks”. Institution: CNR – Istituto CNUCE, Pisa, Italy. [USA co-Investigator].
- GTE Corporation. Amount: \$125,000. Period: 1997-1998. Title: “Research and Curriculum Development in Wireless Communication Systems”. [One of 6 Co-Principal Investigators].

TEACHING AND STUDENT SUPERVISION

Courses Taught

- EE 171, Signals and Systems (required, undergraduate, UVM).
- EE 174, Introduction to Communication Systems (required, undergraduate, UVM).
- EE 270, Probability Theory and Stochastic Processes (core in Signals and Systems, graduate, UVM).
- EE 295, Stochastic Models for Data Networks (graduate, UVM).
- EE 373, Digital Communications (graduate, UVM).
- EE 378, Special Topics in Statistical Communication and Related Fields (graduate, UVM).
- ECE 3241, Applied Probability and Stochastic Processes (required, graduate, NU).
- ECE 1458, Communication Networks (undergraduate, NU).
- ECE 3511, Data Networks (graduate, NU).
- Communication Networks I (required, undergraduate, (UoA)
- Advanced Networking Technologies (graduate, UoA)
- Network Modelling and Performance Evaluation (graduate, UoA).

Supervised M.Sc. Theses

1. “Efficient Content Searching Schemes for Peer-to-Peer Networks”, **Panagiotis Pandazopoulos**, 2008 [UoA]
2. “Analysis of node cooperation under uncertainty in Content Distribution Networks”, **Eva Jaho**, 2007 [UoA]
3. “Reputation-based trust mechanisms for autonomic networks”, **Ioannis Manolopoulos**, 2007 [UoA].
4. “Scalable service migration for optimal service provision over a network”, **Alexis Xydias**, 2007 [UoA]
5. “Performance analysis of the IEEE 802.11 WLANs”, **Emmanuil Kafetzakis**, 2004 [UoA]
6. “Web-caching and meta-algorithms for hierarchical caches”, **Sophia Syntila**, 2003 [UoA]
7. “ns-2 simulation-based analysis of the lifetime of multi-hop paths in ad-hoc networks”, **Nikos Zinelis**, 2003 [UoA]
8. “Study of Wireless LANs and Metropolitan Networks”, **Dimitris Kogias**, 2004 [UoA]
9. “Routing in Ad Hoc Networks”, **Giannis Gravaris, Nasos Vaios**, May 2002 [UoA]
10. “Study of the Impact of Replacement Granularity on Video Caching”, **Elias Balafoutis**, June 2002 [UoA]
11. “Performance Evaluation for Medium Size Buffers”, **Christos Mpitas**, June 2002. [UoA]
12. “A Real-Time Transmission Scheduling Platform”, **Nikos Karellos**, June 2002 [UoA].
13. “Video Transmission over IP Networks”, **Georgios Ioannidis**, June 2002 [UoA].

14. “Real Time Application support in Best Effort Networks”, **Nikolaos Laoutaris**, June 2001 [UoA].
15. “Offered Load Estimation for a Multimedia Cable Network System”, **Firass Abi-Nassif**, Sept. 1998 [NU].
16. “Study of Various TDMA Schemes for Wireless Networks in the Presence of Deadlines and Overhead”, **Cesar Santivanez**, Sept. 1998 [NU]
17. “Study of Impact of Network and Source Time Scales on Feedback-Based Congestion Control”, **Tamer Dag**, Feb. 1997. [NU].
18. “A Cooperative Scheduling and Regulation Scheme for Real-Time Communications”, **Steve Iatrou**, Feb. 1997. [NU].
19. “ATM Buffer Management for Time Constrained Traffic”, **Geping Chen**, June 1995. [NU].
20. “Analytical Models for the Performance Evaluation of the DQDB Metropolitan Area Network”, **Randall Landry**, Aug. 1992. [UVM].
21. “A Proposed Congestion Control Mechanism for a High Speed ATM Network”, **David Hoag**, July 1992. [UVM].

Supervised Ph.D. Dissertations

1. **Constantinos Vassilakis**, “Content distribution support in modern wireless and wired networks”, (2008, University of Athens). Employment: Greek NREN, GRNet.
2. **Athanasios Vaios**, “Short-range multi-hop communication extension to Wireless LANS”, (2008, University of Athens). Employment: Information Systems Division, at the University of Athens.
3. **Pandelis Balaouras**, “Rate Adaptation Schemes for Continuous Media Steams”, (2005, University of Athens). Employment: Multimedia Division at the University of Athens.
4. **Nikolaos Laoutaris**, “Modeling and Optimization of Content Networks”, (2004, University of Athens). Employment: Marie-Curie Post-Doc Fellow, Boston University – University of Athens; Post-Doc Fellow at Harvard University; Researcher at Telefonica I&D, Barcelona.
5. **Konstantinos Oikonomou**, “Topology Unaware MAC Protocols for Ad Hoc Networks”, (2004, University of Athens). Employment: Post-doc at the University of Athens; Lecturer at the Ionian University.
6. **Antonis Panagakis**, “Study of the capacity of Static Weight Allocation Scheduling schemes and Wireless Multi-hop Networks”, (2004, University of Athens). Employment: Post-Doc at the University of Athens; Administrative staff at University of Athens.
7. **Cesar Santivanez**, “Mechanisms toward a Multi-mode Routing Protocol for Mobile Ad Hoc Networks”, (2001, Northeastern University, USA). Employment: BBN Technologies, Boston (USA).
8. **Zoe Antoniou**, “Scheduling Algorithms for Application-Level QoS Support of Continuous Media Streams”, (1999, Northeastern University, USA). Employment: Nokia Research Center, Boston (USA).
9. **Tamer Dag**, “Proactive/Reactive Congestion Control Schemes for High Speed Networks”, (1999, Northeastern University, USA). Employment: Lucent Technologies; Isik University (Turkey).
10. **Jeffrey Capone**, “Achievable QoS and Scheduling Policies for Integrated Services Wireless Networks”, (1997, Northeastern University, USA). Employment: Arizona State University (USA);
11. **Mohamed Abdelaziz**, “Traffic Management and Congestion Control”, (1995, University of Vermont, USA). Employment: Lucent Technologies;
12. **Randall Landry**, “Performance Evaluation of Asynchronous Transfer Mode (ATM) Networks”, (1994, University of Vermont, USA). Employment: Texas Instruments, Dallas (USA); Mitre Corp., Boston (USA).
13. **Sophia Tsakiridou** “Queuing Analysis of Resource Allocation Policies for Communication Networks” (1994, University of Vermont, USA). Employment: University of Vermont (USA); Canadian Research Center (CA); Technical University of Crete.

Currently supervised Ph.D. Candidates

Leonidas Tzevelekas, Manolis Kafetzakis, Dimitris Kogias, Eva Jaho, Panagiotis Pandazopoulos, Ioannis Manolopoulos, Christoforos Panos.

Funded Post-Doctoral Research Associates

1. **Dr. Nikolaos Laoutaris** (2006-07), currently with Telefonica Research I+D
2. **Dr. Konstantinos Oikonomou** (2006-present), currently with Ionian University
3. **Dr. Christos Xenakis** (2007-present), currently with the University of Peiraias
4. **Dr. Gregoris Karagiorgos** (2007-2009), currently with Higher Technological Institute of Sparta.
5. **Dr. Giannis Koukoutsidis** (2007-2008), currently with the University of Peloponnese.

Graduate Student Committee Participation

- Ph.D. examination committee member for Ruben Cuevas, Universidad Carlos III de Madrid (UC3M), June, 2010, Leganés (Madrid), Spain
- Ph.D. examination committee member for Vittorio Manetti, end of 2009, University of Napoli, Italy.
- Ph.D. examination committee member for Thomas Silverstone, UPMC, Sept 2009, University Pierre Marie Currie (UPMC), France.
- Ph.D. examination committee member for Michalis Markou, University of Cyprus, July 2009, Cyprus.
- Ph.D. examination committee member for D. Antonio de la Oliva Delgado, Universidad Carlos III de Madrid (UC3M), July 2008, Leganés (Madrid), Spain
- Ph.D. examination committee member for Roberto Cascella, Dec 2007, University of Trento, Italy.
- Ph.D. examination committee member for Ramin Hekmat, June 2005, Technical University of Delft, Netherlands.
- Member of the Advisory and Examination Committee for 21 graduate students (M.Sc. and Ph.D. before 2006).

Textbooks

- Translation in Greek of the text: “Communication Networks: A First Course”, Jean Walrand, McGraw-Hill, second edition, 1998 (with Prof Merakos), to be published, fall 2003.

PROFESSIONAL ACTIVITIES

Membership

- Institute of Electrical and Electronics Engineers (IEEE) Fellow (student member 1984-88, IEEE member 1988-93, senior member 1993 - 2006);
- IEEE Communications Society;
- IEEE Technical Committee on Computer Communications (TCCC);
- *Conference Coordinator*, Technical Committee on Computer Communications (TCCC) of the IEEE Communications Society [Elected officer, 7/97-7/99.]
- International Federation for Information Processing (IFIP), Chair of Working Group WG6.3 on Performance of Communication Systems (2003 - 2008); National representative of the IFIP Greek Computer and Telecommunications Society to IFIP-TC6)
- International Teletraffic Congress (ITC);
- Greek Chamber of Professional Engineers (Professional License, 1983 -).

- IFIP Greek Computer and Telecommunications Society (EITY) (2008-)
- Autonomic Communication Forum (Vice-Chair, 2004 - 2006)

Book/CD Editorial

- C. Douligeris, I. Stavrakakis, proceedings of the 6th Annual IFIP Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2007), June 13-15, 2007, Corfu, Greece.
- I. Stavrakakis, M. Smirnov (editors), “Autonomic Communications, 2nd International IFIP Workshop WAC2005, Athens, Greece, October 2005”, *Lecture Notes in Computer Science – LNCS, vol. 3854, Springer-Verlag, Heidelberg, Germany, 2006.*
- Eitan Altman, Holger Karl, Ravi Mazumdar, Ioannis Stavrakakis, proceedings of the 3rd International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt’05), 4-6 April 2005 • Riva del Garda, Trentino, Italy (*IEEE Computer Society*)
- M. Smirnov E. Biersack C.Blondia, O. Bonaventure, O. Casals, G. Karlsson, G. Pavlou, B. Quoiyin, J. Roberts, I. Stavrakakis, B. Stiller, P. Trimintzios, P. Mieghem (editors), “Quality of Future Internet Services - COST Action 263 Final Report”, *Lecture Notes in Computer Science, Vol. 2856, Springer-Verlag, Heidelberg, Germany, 2003*
- G. Pujolle, H. Perros, S. Fdida, U. Korner, I. Stavrakakis (editors), “Networking’2000”, *Springer Verlag, May 2000.*

Journal Editorial

- Editor for Elsevier Computer Communications Journal (2008 -)
- Editor for ACM/Baltzer Wireless Networks (WINET) Journal (1998 -)
- Editor for IEEE/ACM Transactions on Networking (2001 - 2008)
- Editor for Computer Networks (The International Journal for Computer and Telecommunications Networking), North-Holland (1999 - 2006).
- Editor for ACM/Baltzer Wireless Networks (WINET) Journal (1998 -)
- Journal Guest Editorial: C. Blondia, I. Stavrakakis, "In Memory of Olga Casals", *Computer Networks Journal*, Vol. 45, Iss. 3, June 2004.
- Journal Guest Editorial: L. Merakos, I. Stavrakakis, “Editorial for the Special Issue on Channel Access on Wireless Networks”, *ACM/Baltzer Mobile Networks and Applications (MONET)*, Vol. 2, No. 1, pp. 1-2, 1997.
- Journal Guest Editorial: I. Stavrakakis, T. Chen, “Editorial for the Special Issue on Wireless LAN’s”, *ACM/Baltzer Mobile Networks and Applications (MONET)*, Vol. 3, No. 3, pp. 235-236, 1998.
- Reviewer for the Journals:
IEEE Transactions on Communications; IEEE/ACM Transactions on Networking; IEEE Journal on Selected Areas in Communications; IEEE Transactions on Information Theory; Computer Networks Journal; Annals of Operations Research; Telecommunications Systems; Performance Evaluation Journal; ACM/Baltzer Mobile Networks and Applications (MONET) Journal; ACM/Baltzer Wireless Networks (WINET) Journal, etc.

Conference Organization

- Major involvement in Conference organization:
 - Co-Chair, Autonomic and Opportunistic Communications (AOC’08) workshop of the 2nd IEEE WoWMoM conference, June 23, 2008, Newport Beach, California.

- General co-Chair, Sixth Annual Mediterranean Ad Hoc Networking Workshop (Med-Hoc-Net 2007), June 13-15, 2007, Corfu, Greece.
- Co-Chair, Autonomic and Opportunistic Communications (AOC'07) workshop of the first IEEE WoWMoM conference, June 18, 2007, Helsinki, Finland.
- Co-organizer of NeXtworking '07, the Second COST-NSF Workshop on Future Internet: From Fundamentals to Experiments, April 19–20, 2007, Berlin.
- General Chair and Technical Program Committee co-chair for the 2nd International IFIP Workshop on Autonomic Communication (WAC'05), Oct. 3-5, 2005, Vouliagmeni, Athens, Greece.
- Technical Program co-chair, 3rd IEEE International Symposium on Modeling and Optimization of Mobile, Ad Hoc and Wireless Networks (WiOpt), April 4-6, 2005, Trento, Italy
- Technical Program co-Chair, Fifth European Wireless Conference (EWC'04) "Mobile and Wireless Systems beyond 3G", February 24-27, 2004, Barcelona, Spain
- General Chair and Technical Program Committee co-chair, COST-IST (EU) - NSF (USA) Workshop on Networking (NeXtworking'03), June 23-25, 2003, Chania, Crete, Greece.
- General Vice-Chair, IFIP Networking'2002, May 2002, Pisa, Italy.
- Technical Program Co-chair, IFIP Networking'2000, Paris, France.
- Organizer of the 1999 IFIP WG6.3 Workshop, Crete, Greece, Sept. 1999.
- Co-organizer of the 1996 International Teletraffic Congress (ITC) Mini-seminar on "Performance Modeling and Design of Wireless/PCS Networks", Oct. 1996, Boston, USA.
- IEEE TCCC representative (responsible for about 9 sessions) in the 1995 International Conference on Communications (ICC'95).
- Member of the Steering Committee:
 - Autonomic Opportunistic Communications Workshop (AOC), of the IEEE WoWMoM conference.
 - IFIP WONS
 - IFIP Networking (2003-2009)
 - CONEXT (2003-2006)
 - Next Generation Tele-traffic and Wired/Wireless Advanced Networking (NEW2AN)
- Member of the Technical Program Committee: 2003-2009:
 - IEEE Infocom'09, April, 19-25, 2009, Rio, Brasil.
 - PerSeNS 2009, Fifth IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing (an IEEE PerCom Workshop), March 16-20, Dallas, USA
 - IEEE Infocom'08, April 13-18, 2008, Phoenix, AZ.
 - The 7th IFIP Annual Mediterranean Ad Hoc Networking Workshop Med-Hoc-Net'08, June 23-27 2008, Palma de Mallorca, Spain
 - PerSeNS 2007, Third IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing (an IEEE PerCom Workshop), March 19-23, 2007, White Plains, NY.
 - COMSWARE '07, IEEE/Create-Net/ICST International Conference on COMMunication System softWare and MiddlewaRE, Bangalore, India on January 7-12 , 2007
 - WONS'07, 4th Annual Conference on Wireless On demand Network Systems and Services, Jan. 24-26, 2007, Obergurgl, Austria.
 - IEEE Infocom'07, May 6-12, 2007, Anchorage, Alaska, USA.
 - ACM MOBIHOC'07, Sept. 9-14, 2007, Montreal.
 - IEEE Infocom'06, April 24-27, 2006, Barcelona, Spain.

- WiOpt'06, 4th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, April 3-7, 2006, Boston.
- WONS'06, 3rd Annual Conference on Wireless On demand Network Systems and Services, Jan. 18-20, 2006, Les Mnuires, France.
- IPCC'06, IEEE International Performance Computing and Computing Conference, April 10-12, 2006, Phoenix, Arizona.
- PerSeNS 2006, Second IEEE International Workshop on Sensor Networks and Systems for Pervasive Computing (part of PerCom), March 13, 2005, Pisa.
- IFIP NetCon'05, Network Control and Engineering for QoS, Security and Mobility, Nov. 14-18, 2005, Lannion, France.
- 13th IEEE International Conference on Network Protocols (ICNP), Nov. 6-9, 2005, Boston.
- CoNEXT'05, Oct 24-27, 2005, Toulouse.
- REALMAN workshop, IEEE ICPS Workshop on Multi-hop Ad hoc Networks: from theory to reality, July 14, 2005, Santorini.
- IEEE International Workshop on Wireless Mobile Multimedia (WoWMoM), First International Workshop on Autonomic Communications and Computing (ACC 2005) June 13, 2005 Taormina, Italy.
- IEEE Senmetrics' 05, July 21, 2005, San Diego.
- IEEE WICON'05, July 13-15, 2005, Budapest.
- IFIP Networking'05, May 2-6, 2005, Waterloo, Canada.
- IEEE PerCom 2005, First Workshop on Sensor Networks and Systems for Pervasive Computing (PerSeNS'05), Workshop on Sensor Networks and Systems for Pervasive Computing (PerSeNS'05) March 8-12, 2005, Kauai Island, Hawaii.
- IEEE Infocom'05, March 13-17, Miami.
- IFIP WONS'05, Jan. 19-21, 2005, St. Moritz.
- Med-Hoc-Net 2004, The Third Annual Mediterranean Ad Hoc Networking Workshop, June 27-30, 2004 Bodrum, Turkey.
- IEEE International Conference on Next Generation Teletraffic and Wired/Wireless Advanced Networking (NEW2AN'04), February 02-06, 2004, R&D LONIIS, St.Petersburg, Russia.
- First Working Conference on Wireless On-demand Network Systems (WONS 2004), January 21-23, 2004, Madonna di Campiglio, Trento, Italy.
- 12th IEEE International Conference on Network Protocols (ICNP), Oct. 5-8, 2004, Berlin, Germany.
- IEEE INFOCOM'04, March 7-11, 2004, Hong Kong.
- International Workshop on Quality of Future Internet Services (QofIS), Sept. 29 – Oct. 1, 2004, Barcelona, Spain.
- The 1st IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), Oct. 25-27, 2004, Fort Lauderdale, Florida, USA
- 16th ITC Specialist Seminar on Performance Evaluation of Wireless and Mobile Systems, August 31 - September 02, 2004, University of Antwerp, Antwerp, Belgium.
- IFIP Net-Con'2004, Nov. 3 - 5, 2004, Palma de Mallorca, Spain.
- 11th IEEE International Conference on Network Protocols (ICNP), Atlanta, Georgia, USA, November 4-7, 2003
- International Workshop on Quality of Future Internet Services (QofIS), Oct 1-3, 2003, Stockholm, Sweden.

- Eighth International Conference on Personal Wireless Communications (PWC'2003): Mobile and Wireless Communications, Sept. 23-25, 2003, Venice, Italy
 - IEEE INFOCOM'03, March 30-April 4, 2003, San Francisco.
 - First IEEE International Workshop on Sensor Networks and Applications (SNPA 2003), Anchorage, Alaska, 2003.
- Member of the Technical Program Committee: before 2003:
 - IEEE INFOCOM'92,'93,'94,'95,'96,'97, '98, '01, '02
 - European Wireless Conference, 2002
 - IEEE ICC Wireless Networking Symposium, 2002
 - Workshop on Wired/Wireless Internet Communications (WWIC 2002)
 - IEEE/IFIP Net-Con'2002 (Network Control and Engineering for QoS, Security and Mobility with focus on Policy-based Networking)
 - Communication Networks and Distributed Systems Modeling and Simulation Conference (CNDS), San Antonio, Texas, January 27-31, 2002.
 - International Workshop on Quality of Future Internet Services (QofIS), 2000, 2001, 2002.
 - 14th ITC Specialists Seminar on Access Networks and Systems, 2001
 - IEEE ICUPC'96 & 97
 - IEEE Wireless Communications and Networking Conference (WCNC'99)
 - Fifth International Conference on Data Communication Systems and Their Performance (1993, IFIP)
 - International Workshop on Performance Modeling and Evaluation of ATM Networks (IFIP), 1994, 1995, 1996, 1997, 1998
 - 9th IFIP Working Conference on ATM & IP Networks (IFIP ATM & IP 2001)
 - SPIE International Conference on Voice, Video, and Data Communications, 1996, 1998
 - Tenth ITC Specialist Seminar "Control in Communications" (1996)
 - Performance of Information and Communications Systems (PICS'98, IFIP)
 - 1999 Internet Workshop (IWS'99)
 - International Conference on Performance and QoS of Next Generation Networking (P&Qnet2000).
 - Session Organizer:
 - IEEE GLOBECOM'92&'93
 - IEEE ICC'94
 - IEEE MILCOM'98
 - Session Chair:
 - Session "Innovation in Services", 3rd Broadband Networks and Services: "Innovation in Broadband Networks and Services", June 6-8, 2008, Grand Resort Lagonissi, Athens, Greece. <http://www.eett.gr/conference2008/html/programme-eng.htm>
 - AOC'08
 - WONS'08
 - COMSWARE '07
 - Eighth International Conference on Personal Wireless Communications (PWC'2003)
 - IEEE INFOCOM'92,'93,'96, '97, '01
 - Second International Workshop on Quality of Future Internet Services (QofIS'2001)

- 2001 International Workshop on Digital Communications (IWDC'2001)
- 2000 International Zurich Seminar on Broadband Communications
- International Conference on Telecommunications (ICT'98)
- IEEE MILCOM'98
- IEEE Conference on Protocols for Multimedia Systems – Multimedia Networking (PROMS-MmNet'97)
- International IFIP Workshop on Performance Modeling and Evaluation of ATM Networks, 1996
- IEEE ICUPC'96
- 1996 ITC Mini-Seminar
- 1996 SPIE International Conference on Voice, Video, and Data Communications
- IEEE ICC'94 & '95
- TRICOMM'93
- IEEE GLOBECOM'93

Research Proposal / Project Evaluation

- 2009 - Research proposal evaluation reviewer/panellist for the USA National Science Foundation (also in 12/1993, 12/1996, 2/2000, 5/2000, 12/2000, 5/2001, 6/2002, 5/2004, 6/2004, 5/2005, 5/2006, 6/2006).
- 2009 - Research proposal reviewer for the IST-FET Open Programme (also in 2000, 2002, 2004, 2005, 2006, 2008)
- 2009 - Research proposal evaluation reviewer/panellist for the IST Programme, 7th Framework, Network of the Future Initiative (5/2009)
- 2007 - Research proposal reviewer for the Open University of Cyprus
- 2007 - Research proposal evaluation reviewer/panellist for the IST Programme, 7th Framework, FIRE (Future Internet Research and Experimentation) Initiative (11/2007)
- 2007 - Research proposal evaluation reviewer/panellist for the IST Programme, 7th Framework, Network of the Future Initiative (6/2007)
- Research proposal evaluation reviewer/panellist for the IST Programme, 6th Framework (2003, 2004)
- Research proposal evaluation reviewer/panellist for the IST Programme, 5th Framework (2002)
- Research proposal evaluation for the General Secretariat for Research and Development, Ministry of Development of Greece (2003, 2005)
- Research proposal reviewer for the FWO, Brussels, Belgium (1997 & 2000)
- Research proposal reviewer for the Louisiana Board of Regents (1996)
- Research project evaluator (09-EFFIPSANS, 09-CHIANTI, 08-MUSE, 07/06/05-OBAN, 06-BROADWAN)

Other Evaluation Committees

- External member of the Faculty Search and Evaluation Committee for one tenure-track academic position at any rank in the area of Communications, Technological Univ of Cyprus, July 6-7, 2009, Cyprus.
- Member of the evaluation jury that selected the candidates for a postdoctoral research position in the Centre for Informatics and Systems of the University of Coimbra (CISUC), in the framework of the Communications and Telematics Group (LCT), funded by Portuguese Foundation for Science and Technology – FCT (Tele-meeting, May 8, 2008).
- External member of the Faculty Search and Evaluation Committee for one tenure-track academic position at the rank of Lecturer or Assistant Professor in all specialties in the area of Computer Engineering, Univ of Cyprus, May 14-16, 2008, Cyprus.

University Committee Membership

- Member of the Signal and Systems Committee (to develop new curriculum in the area), Fall 1988 (UVM).
- Member of the Ph.D. Exam Committee, 1989 - 1995 (UVM).
- Member of the new Ph.D. exam Committee Fall 1989 (UVM).
- Member of the Graduate Program Committee, June 1991 – Aug. 1994 (UVM).
- Chairman of the Graduate Program Committee, Dec. 1992 – Aug. 1994 (UVM).
- Representative of the Engineering School to the University Library Committee, 1993 (UVM).
- Departmental Seminar Organizer, 1993-94 (UVM).
- Co-organizer of the Queen's/Vermont Seminar Day (with Prof. Mouftah, 8 student presentations on Broadband research (UVM)
- Member of the Graduate Program Committee, Sept. 1994 – Sept. 1995 (NU).
- Member of the Systems and Circuits Program Committee, Fall 1995 (NU).
- Panel Organizer on “Issues and Trends in High Speed Networks”, Annual CDSP Workshop, Northeastern University, Boston, 1997 (NU).
- Speaker in the Annual CDSP Workshop (1995, 1996 και 1997), Northeastern University, Boston (NU)
- Member of the Graduate Program Committee, 2001 – (UoA).
- Head of the Division of Communications and Signal Processing, 2009 - (UoA).