Stavros Toumpis

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Education

DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING| 2003 | STANFORD UNIVERSITY

- Ph.D. Thesis title: Capacity and Cross-Layer Design of Wireless Ad Hoc Networks
- Advisor: Prof. Andrea J. Goldsmith

MASTER OF SCIENCE IN MATHEMATICS | 2003 | STANFORD UNIVERSITY

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING | 1999 | STANFORD UNIVERSITY

DIPLOMA IN ELECTRICAL AND COMPUTER ENGINEERING | 1997 | NATIONAL TECHNICAL UNIVERSITY OF ATHENS

- GPA: 9.38/10.0
- Senior Thesis title: The Far Field of a Point Source Radiating in an Unbounded Biaxially Anisotropic Medium
- Senior Thesis Advisor: Professor P. G. Cottis

Work Experience

ASSOCIATE PROFESSOR | DEPARTMENT OF INFORMATICS, ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS (AUEB) | 2020-PRESENT

ASSISTANT PROFESSOR | DEPARTMENT OF INFORMATICS, AUEB | 2009-2020

LECTURER | UNIVERSITY OF CYPRUS, DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING | 2005-2009

SENIOR RESEARCHER | TELECOMMUNICATIONS RESEARCH CENTER VIENNA (FTW.) | 2003-2005

TEACHING/RESEARCH ASSISTANT | STANFORD UNIVERSITY | 1997-2003

Participation in Research Projects

1. **LEMONADE (Wireless Mobile Delay-Tolerant Network Analysis and Experimentation)**
   Framework: H.F.R.I. Project for supporting faculty members and researchers. Principal Investigator: S. Toumpis. Budget: 177,887.50 euro. Duration: 2020-2022.
2. **SCALINCS (Scaling Stochastic Dynamics: from Microscopic Interactions to Macroscopic Phenomena)**
   Framework: H.F.R.I. Project for supporting faculty members and researchers. Principal Investigator: I. Kontoyiannis, Budget: 170,000 ευρώ. Duration: 2020-2022.

3. **UNSURPASSED (Unmanned Surface Vehicles as Primary Assets for the Coast Guard)**
   Framework: Third party contract with HORIZON 2020 RAWFIE Project. Principal Investigator: S. Toumpis, Budget: 100,000 ευρώ. Duration: 2017-2018.
4. **I-CAN (Information-Centric future mobile and wireless Access Networks)**
   Framework: ARISTEIA II. Principal Investigator: G. Polyzos. Duration: 2014-2015.
5. **CROWN (Optimal Control of self-Organized Wireless Networks)**
   Framework: THALES. Principal Investigator: Artemis Hadjigeorgiou. Duration: 2012-2015.
6. **DISCO (Distributed Wireless Communications)**
   Framework: THALES. Principal Investigator: G. Karystinos, Duration: 2012-2015.
7. **NETREFOUND (NETwork Research FOUNDations)**
   Framework: FP6 FET STREP. Principal Investigator: Leandros Tassiulas. Duration: 2006-2009.
8. **NEWCOM (Network of Excellence in Wireless Communications)**
   Framework: FP6 Network of Excellence in Wireless Communications. Duration: 2004-2007.

Committee Membership

1. Undergraduate Studies Committee of the Department of Informatics, AUEB (2010-present)
2. Quality Assurance Unit, AUEB (2017-present)
3. Committee of the Postgraduate Studies Program in Computer Science, AUEB (2017-present).
4. Ethics Committee, AUEB(2019- present, substitute member)

Ph.D. Theses Supervision

1. Anna Sidera, "Design and Analysis of Novel Routing Protocols for Vehicular Delay-Tolerant Networks" (University of Cyprus, completed in 2015. Joint supervision by S. Toumpis and Ch. Hadjicostis)

MSc Theses Supervision (Postgraduate Studies Program in Computer Science, AUEB)

1. Ioannis Tselekounis, "A partially separable load balancing problem in wireless sensor networks," 2010.
2. Christos Christodouleas, "An Overview of Routing Problems and Solutions in Delay Tolerant Networks," 2010.
3. Christos Tsiaras, "Efficient Minimization of Routing Cost in Delay Tolerant Networks", 2011.
4. George Konidaris, "Flow Optimization in Delay Tolerant Networks by Dual Decomposition: a numerical investigation," 2011.
5. Argyrios Tasiopoulos," Delay/Cost Tradeoffs in Geographically Routed Delay Tolerant Networks, 2012.
6. Aggelos Fatouros, "Power efficient multicasting in wireless ad hoc networks," 2012.
7. Theodosis Petridis, "Caching Algorithms in Cache Networks with dynamic Popularity," 2016.
8. Stylianos Karydis, "Analysis and Modeling of Caching Algorithms for Files with Dynamic Popularity," 2016.
9. Esmerald Aliaj, "Dedalus: An Ad Hoc & DTN protocol testing framework," 2018.
10. Alexandros Tzimas, "Techniques for Solving Delay-Tolerant Network Utility Maximization Problems," 2019.

Independent Teaching

1. Mathematics I (AUEB, 11 times)
2. Probability (AUEB, 10 times)
3. Performance Evaluation of Systems and Networks (AUEB, 3 times)
4. Probability Theory (AUEB, 3 times)
5. Mathematical Production Models II (AUEB, once)
6. Stochastic Processes (University of Cyprus, twice, and Technical University of Vienna, once)
7. Random Signals and Systems (University of Cyprus, twice)
8. Wireless Communication Networks (University of Cyprus, twice)
9. Optimization Theory and Applications (University of Cyprus, once)
10. Wireless ad hoc networks (Technical University of Vienna, twice, and Polytechnic University of Catalonia (UPC), once, in a 20-hour course)

Service

1. Member of the Board, National Documentation Center.
2. Steering Committee Chair, International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt), 2015-2018.
3. Member of the Editorial Board, Computer Networks Journal, 2011-2018.
4. Member of the Editorial Board, Performance Evaluation Journal, 2008-2018.
5. Technical Program Committee Member (more than 30 times) for various conferences, e.g., RAWNET, Chants Valuetools, WONS, AOC, MEDHOCNET, IWWAN, IWCLD, Infocom MOVE, PIMRC 2008, ICC NETSTAT, ICC, SECON, SPAWC 2018, WiOpt, ISCC.
6. Technical Program Committee co-chair for Valuetools 2008.
7. Reviewer for numerous journals and conferences.
8. Member of the organization committee of various conferences, e.g.:
    a. Webmaster for Infocom 2007
    b. Local Organization Chair CTW 2016
9. Guest Editor of special issues:
    a. Performance Evaluation, July 2013, Selected Papers from the 9th Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2011)
    b. EURASIP Journal on Advances in Signal Processing, 2008, Cross-Layer Design for the Physical, MAC, and Link Layer in Wireless Systems (with Petar Popovski, Mary Ann Ingram, Christian B. Peel, Shinsuke Hara)
    c. Discrete Event Dynamic Systems, Dec. 2010, Special Issue on Valuetools 2008 (with Claudio Cicconetti)

PUBLICATIONS

CITATIONS

~2627, h-index=21 (20/2/2020, Google Scholar, including self-citations).

BOOKS

1. S. Toumpis, S. Gitzenis, "Calculus of one-variable functions", e-book, Hellenic Academic Libraries Link, http://hdl.handle.net/11419/2177
2. I. Kontoyiannis, S. Toumpis, "Elements of Probability" e-book, Hellenic Academic Libraries Link, http://hdl.handle.net/11419/2810

JOURNAL PAPERS

1. Y. Thomas, N. Fotiou, S. Toumpis, and G. C. Polyzos, "Improving mobile ad hoc networks using hybrid IP-Information Centric Networking" submitted to Elsevier Computer Communications, 2019.
2. R. Cavallari, S. Toumpis, R. Verdone, and I. Kontoyiannis, "Packet Speed and Cost in Mobile Wireless Delay-Tolerant Networks," submitted to IEEE Transactions on Information Theory, 2018.
3. D. Cheliotis, I. Kontoyiannis, M. Loulakis, S. Toumpis, "A simple network of nodes moving on the circle," accepted for publication in Random Structures & Algorithms, 2020.
4. A. Tasiopoulos, O. Ascigil, I. Psaras, S. Toumpis, and G. Pavlou, "Fogspot: Spot pricing for application provisioning in edge/fog computing, in IEEE Transactions on Services Computing, Jan. 2019, DOI https://ieeexplore.ieee.org/document/8625439.
5. A. Sidera and S. Toumpis, "Wireless mobile DTN routing with the extended minimum estimated expected delay protocol," Ad Hoc Networks, Vol. 42, pp. 47-60, May 2016, DOI 10.1016/j.adhoc.2016.01.006.
6. U. Schilcher, S. Toumpis, M. Haenggi, A. Crismani, G. Brandner, and C. Bettstetter, "Interference Functionals in Poisson Networks," IEEE Transactions on Information Theory, No. 1, Vol. 62, pp. 370-383, Jan. 2016, DOI: 10.1109/TIT.2015.2501799.
7. A. Crismani, S. Toumpis, U. Schilcher, G. Brandner, and Christian Bettstetter, "Cooperative Relaying Under Spatially and Temporally Correlated Interference," IEEE Transactions on Vehicular Networks, No. 10, Vol. 64, pp. 4655-4669, Oct. 2015, DOI: 10.1109/TVT.2014.2372633.
8. A. G. Tasiopoulos, C. Tsiaras, and S. Toumpis, "Optimal and achievable cost/delay tradeoffs in delay-tolerant networks," Computer Networks, Vol. 70, Sep. 2014, pp. 59-74, DOI 10.1016/j.comnet.2014.05.006.
9. A. Sidera and S. Toumpis, "Delay tolerant firework routing: a geographic routing protocol for wireless delay tolerant networks," EURASIP Journal on Wireless Communications and Networking, Dec. 2013, DOI 10.1186/1687-1499-2013-23.
10. R. Catanuto, S. Toumpis and G. Morabito, "On asymptotically optimal routing in large wireless networks and Geometrical Optics analogy," Computer Networks, Vol. 53, No. 11, July 2009, pp. 1939-1955, DOI 10.1016/j.comnet.2009.02.021.
11. G. A. Gupta, S. Toumpis, J. Sayir and R. R. Mueller, "On the transport capacity of Gaussian multiple access and broadcast channels," Wireless Networks, Vol. 14, No. 5, pp. 573-590, DOI 10.1007/s11276-006-0001-x
12. S. Toumpis, "Mother nature knows best: A survey of recent results on wireless networks based on analogies with physics," Computer Networks, Vol. 52, No. 2, Feb. 2008, pp. 360-383, DOI 10.1016/j.comnet.2007.08.011.
13. S. Toumpis, "Asymptotic Capacity Bounds for Wireless Networks with Non-Uniform Traffic Patterns," IEEE Transactions on Wireless Communications, No. 6, Vol. 7, pp. 2231-2242, June 2008, DOI: 10.1109/TWC.2008.061010.

14. S. Toumpis and A. J. Goldsmith, "New media access protocols for wireless ad hoc networks based on cross-layer principles," IEEE Transactions on Wireless Communications, No. 8, Vol. 5, pp 2228-2241, Aug. 2006, DOI: 10.1109/TWC.2006.1687739.
15. S. Toumpis and L. Tassiulas, "Optimal deployment of large wireless sensor networks," IEEE Transactions on Information Theory, No. 7, Vol. 52, pp. 2935-2953, July 2006, DOI: 10.1109/TIT.2006.876256.
16. G. A. Gupta and S. Toumpis, "Power allocation over parallel Gaussian multiple access and broadcast channels," IEEE Transactions on Information Theory (letter), No. 7, Vol. 52, pp. 2935-2953, July 2006, DOI: 10.1109/TIT.2006.876250.
17. S. Toumpis and A. J. Goldsmith, "Capacity Regions for Wireless Ad Hoc Networks," *IEEE Trans. Wireless Comm.,* vol. 2, no. 4, pp. 736-748, July 2003.

CONFERENCE PAPERS

1. E. Aliaj, G. Dimaki, P. Getsopoulos, Y. Thomas, N. Fotiou, S. Toumpis, V. Siris, I. Koutsopoulos, G. C. Polyzos, "Wireless maritime networking experiments with Dedalus", Demo at the 2th International Workshop on Wireless Network Testbeds, Experimental Evaluation & Characterization, New Delhi, Nov. 2018.
2. E. Aliaj, G. Dimaki, P. Getsopoulos, Y. Thomas, N. Fotiou, S. Toumpis, I. Koutsopoulos, V. Siris, G. C. Polyzos, "A platform for wireless maritime networking experimentation," in Proc. Global Information Infrastructure and Networking Symposium (GIIS), Thessaloniki, Oct. 2018.
3. D. Cheliotis, I. Kontoyiannis, M. Loulakis, and S. Toumpis, "Analysis of a one-dimensional continuous delay-tolerant network model," in IEEE 19th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC), Kalamata, Greece, June 2018.
4. A. G. Tasiopoulos, O. Ascigil, I. Psaras, S. Toumpis, G. Pavlou, "On-path cloudlet pricing for low latency application provisioning," in IEEE International Symposium on Local and Metropolitan Area Networks (LANMAN), Washington, DC, June 2018.
5. I. Kontoyiannis, S. Toumpis, R. Cavallari, and R. Verdone, "Asymptotics of the Packet Speed and Cost in a Mobile Wireless Network Model," in Proc. IEEE ISIT, Vail, CO, 2018.
6. R. Cavallari, S. Toumpis, and R. Verdone, "Analysis of Hybrid Geographic/Delay-Tolerant Routing Protocols for Wireless Mobile Networks," in Proc. IEEE Infocom 2018, Honolulu, HI, 2018.
7. D. Cheliotis, I. Kontoyiannis, M. Loulakis, and S. Toumpis, "Exact speed and transmission cost in a simple one-dimensional wireless delay-tolerant network," 2017 IEEE International Symposium on Information Theory (ISIT), Aachen, Germany, June 2017, DOI: 10.1109/ISIT.2017.8006573.
8. R. Cavallari, R. Verdone, and S. Toumpis, "Cost/speed analysis of mobile wireless DTNs under random waypoint mobility," 2016 14th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), Tempe, AZ, June 2016, DOI: 10.1109/WIOPT.2016.7492933.
9. V. G. Douros, S. Toumpis, and G. C. Polyzos, "Power Control and Bargaining for Cellular Operator Revenue Increase Under Licensed Spectrum Sharing," International Conference on Network Games, Control, and Optimization (NEWTGCOOP) 2016, Avignon, France, 2016, DOI 10.1007/978-3-319-51034-7_10.
10. V. G. Douros, S. Toumpis, and G. C. Polyzos, "On the Nash Equilibria of graphical games for channel access in multihop wireless networks," 2014 IEEE Wireless Communications and Networking Conference Workshops (WCNCW), Istanbul, Turkey, April 2014, DOI: 10.1109/WCNCW.2014.6934900.
11. G. C. Polyzos, V. A. Siris, G. Xylomenos, G. F. Marias, and S. Toumpis, "I-CAN: Information-centric future mobile and wireless access networks," 10th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness, Rhodes, Greece, Aug. 2014, DOI: 10.1109/QSHINE.2014.6928676.
12. S. Gitzenis, S. Toumpis, and L. Tassiulas, "Efficient file replication in large wireless networks with dynamic popularity," 10th International Conference on Heterogeneous Networking for Quality,

Reliability, Security and Robustness, Rhodes, Greece, Aug. 2014, DOI: 10.1109/QSHINE.2014.6928681.
13. V. G. Douros, S. Toumpis, and G. C. Polyzos, “Channel access competition in linear multihop device-to-device networks,” 2014 International Wireless Communications and Mobile Computing Conference (IWCMC), Nicosia, Cyprus, Aug. 2014, DOI: 10.1109/IWCMC.2014.6906502.
14. A. Crismani, U. Schilcher, S. Toumpis, G. Brandner, and C. Bettstetter, “Packet travel times in wireless relay chains under spatially and temporally dependent interference,” 2014 IEEE International Conference on Communications (ICC), Sydney, Australia, June 2014, DOI: 10.1109/ICC.2014.6883617.
15. A. Sidera and S. Toumpis, “On the delay/cost tradeoff in wireless mobile Delay-Tolerant Networks,” 2014 12th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), Hammamet, Tunisia, May 2014, DOI: 10.1109/WIOPT.2014.6850332.
16. G. Konidaris, S. Toumpis and S. Gitzenis, “Primal decomposition and online algorithms for flow optimization in wireless DTNs,” 2013 IEEE Global Communications Conference (GLOBECOM), Atlanta, GA, Dec. 2013, DOI: 10.1109/GLOCOM.2013.6831052.
17. U. Schilcher, S. Toumpis, A. Crismani, G. Brandner, and C. Bettstetter, “How does interference dynamics influence packet delivery in cooperative relaying?” MSWiM '13: Proceedings of the 16th ACM international conference on Modeling, analysis & simulation of wireless and mobile systems, Barcelona, Spain, Nov. 2013, DOI: 10.1145/2507924.2507926.
18. A. Sidera and S. Toumpis, “Routing using partition-wide information in wireless Delay Tolerant Networks,” 2013 12th Annual Mediterranean Ad Hoc Networking Workshop (MED-HOC-NET), Ajaccio, France, June 2013, DOI: 10.1109/MedHocNet.2013.6767404.
19. A. Tasiopoulos, C. Tsiaras and S. Toumpis, “On the cost/delay tradeoff of wireless delay tolerant geographic routing,” 2012 IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), San Francisco, CA, June 2012, DOI: 10.1109/WoWMoM.2012.6263706.
20. V. G. Douros, S. Toumpis and G. C. Polyzos, “Power control under best response dynamics for interference mitigation in a two-tier femtocell network,” 2012 10th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt) (RAWNET Workshop), Paderborn, Germany, May 2012.
21. S. Gitzenis, G. Konidaris and S. Toumpis, “Flow optimization in Delay Tolerant Networks using dual decomposition,” ,” 2012 10th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt) (RAWNET Workshop), Paderborn, Germany, May 2012.
22. S. Toumpis, I. Tselekounis, G. D. Stamoulis, H. Meyer, A. Hess and K. A. Hummel, “Cognitive WMNs: A distributed mechanism for leasing cellular bandwidth,” 2011 IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (Workshop: HotMesh 2011), Lucca, Italy, June 2011, DOI: 10.1109/WoWMoM.2011.5986486.
23. A. Sidera and S. Toumpis, “DTFR: A geographic routing protocol for wireless Delay Tolerant Networks,” 2011 The 10th IFIP Annual Mediterranean Ad Hoc Networking Workshop, Favignana Island, Italy, June 2011, DOI: 10.1109/Med-Hoc-Net.2011.5970490.
24. V. G. Douros, G. C. Polyzos, and S. Toumpis, “Negotiation-Based Distributed Power Control in Wireless Networks with Autonomous Nodes,” 2011 IEEE 73rd Vehicular Technology Conference (VTC Spring), Yokohama, Japan, July 2011, DOI: 10.1109/VETECS.2011.5956443.
25. V. G. Douros, G. C. Polyzos, and S. Toumpis, “A bargaining approach to power control in networks of autonomous wireless entities,” MobiWac '10: Proceedings of the 8th ACM international workshop on Mobility management and wireless access, Bodrum, Turkey, Oct. 2010.
26. S. Toumpis and S. Gitzenis, “Load Balancing in Wireless Sensor Networks using Kirchhoff's Voltage Law,” IEEE INFOCOM 2009, Rio De Janeiro, Brazil, April. 2009, DOI: 10.1109/INFCOM.2009.5062084.
27. R. Catanuto, G. Morabito and S. Toumpis, “Opti{c,m}al: Optical/Optimal Routing in Massively Dense Wireless Networks,” IEEE INFOCOM 2007 - 26th IEEE International Conference on

Computer Communications, Barcelona, Spain, May 2007, Barcelona, Spain, DOI: 10.1109/INFCOM.2007.122.
28. S. Toumpis, “Optimal design and operation of massively dense wireless networks: or how to solve 21st century problems using 19th century mathematics,” Interperf '06: Proceedings from the 2006 workshop on Interdisciplinary systems approach in performance evaluation and design of computer & communications systems, Pisa, Italy, Oct. 2006, DOI: 10.1145/1190326.1190334.
29. R. Catanuto, G. Morabito and S. Toumpis, “Optical Routing in Massively Dense Networks: Practical Issues and Dynamic Programming Interpretation,” 2006 3rd International Symposium on Wireless Communication Systems, Valencia, Spain, Sept. 2006, DOI: 10.1109/ISWCS.2006.4362264.
30. S. Toumpis and G. A. Gupta, “Optimal placement of nodes in large sensor networks under a general physical layer model,” 2005 Second Annual IEEE Communications Society Conference on Sensor and Ad Hoc Communications and Networks, 2005. IEEE SECON 2005, Santa Clara, CA, Sep. 2005, DOI: 10.1109/SAHCN.2005.1557082.
31. I. Koutsopoulos, S. Toumpis, L. Tassiulas, “On the relation between Source and Channel Coding and Sensor Network Deployment,” in Proc. International Workshop on Wireless Ad Hoc Networks, London, May 2005 (by invitation).
32. S. Toumpis, R. Muller and J. Sayir, “On the transport capacity of a multiple access Gaussian channel,” International Workshop on Wireless Ad-Hoc Networks, 2004, Oulu, Finland, May-June 2004, DOI: 10.1109/IWWAN.2004.1525569.
33. S. Toumpis and A. J. Goldsmith, “Performance bounds for large wireless networks with mobile nodes and multicast traffic,” International Workshop on Wireless Ad-Hoc Networks, 2004, Oulu, Finland, May-June 2004, DOI: 10.1109/IWWAN.2004.1525555.
34. G. A. Gupta, S. Toumpis, J. Sayir and R. R. Muller, “Transport capacity of Gaussian multiple access and broadcast channels with a large number of nodes,” Proceedings. International Symposium on Information Theory, 2005. ISIT 2005, Adelaide, Australia, Sep. 2005, DOI: 10.1109/ISIT.2005.1523560.
35. S. Toumpis and L. Tassiulas, “Packetostatics: deployment of massively dense sensor networks as an electrostatics problem,” Proceedings IEEE 24th Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM), Miami, FL, Mar. 2005, DOI: 10.1109/INFCOM.2005.1498516.
36. G. A. Gupta, S. Toumpis, J. Sayir and R. R. Muller, “On the transport capacity of Gaussian multiple access and broadcast channels,” Third International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt'05), Trentino, Italy, April. 2005, DOI: 10.1109/WIOPT.2005.35.
37. S. Toumpis, “Capacity bounds for three classes of wireless networks: asymmetric, cluster, and hybrid,” MobiHoc '04: Proceedings of the 5th ACM international symposium on Mobile ad hoc networking and computing, Roppongi Hills, Tokyo, Japan, May 2004, DOI: 10.1145/989459.989477.
38. S. Toumpis and A. J. Goldsmith, “Large wireless networks under fading, mobility, and delay constraints,” IEEE INFOCOM 2004, Hong Kong, China, Mar. 2004, DOI: 10.1109/INFCOM.2004.1354532.
39. S. Toumpis, A. J. Goldsmith and J. Sayir, “Capacity results for asymmetric wireless networks,” International Zurich Seminar on Communications, 2004, Zurich, Switzerland, Feb. 2004, DOI: 10.1109/IZS.2004.1287419.
40. S. Toumpis and A. J. Goldsmith, “Capacity Bounds for Large Wireless Networks under Fading and Node Mobility,” in Proc. Allerton Conference on Communications, Control, and Computing, Allerton, IL, Oct. 2003, pp. 1369-1378.
41. S. Toumpis and A. J. Goldsmith, “Performance, optimization, and cross-layer design of media access protocols for wireless ad hoc networks,” IEEE International Conference on Communications (ICC), Anchorage, AK, May 2003.

42. G. L. Tyler, K. L. Kusza, S. Toumpis, and B. Ahmad, “Effects of Atmospheric Multipath Propagation on Radio Occultation Observables”, in Proc. XXVII URSI 2002 General Assembly (GA), Maastricht, the Netherlands. Abstract #1925, Oral Presentation Programme, XXVII GA, p. 128, Aug. 2002.
43. S. Toumpis and A. J. Goldsmith, “Capacity regions for wireless ad hoc networks,” IEEE International Conference on Communications (ICC), New York, NY, April-May 2002, DOI: 10.1109/ICC.2002.997420.
44. S. Toumpis and A. J. Goldsmith, “Capacity Regions for Wireless Ad Hoc Networks,” in Proc. International Symposium on Communication Theory and Applications, Ambleside, Lake District, UK, July 2001 (by invitation).
45. S. Toumpis and A. J. Goldsmith, “Ad hoc network capacity,” Conference Record of the Thirty-Fourth Asilomar Conference on Signals, Systems and Computers, Asilomar, CA, Oct-Nov. 2000, DOI: 10.1109/ACSSC.2000.910766.
46. S. Toumpis and A. J. Goldsmith, “Some Results for Ad Hoc Networks,” in Proc. Allerton Conference on Communications, Control, and Computing, Allerton, IL, Oct. 2000, vol. 2, pp. 775-784 (by invitation).
47. G. L. Tyler, S. Toumpis, B. Ahmad, and D. P. Hinson, “Measurement Requirements for Radio Occultation,” in Proc. URSI 1999 General Assembly, Toronto, Canada, Aug. 1999.

BOOK CHAPTERS

1. S. Sargento, R. Matos, K. A. Hummel, A. Hess, S. Toumpis, Y. Tselekounis, G. D. Stamoulis, Y. Al-Hazmi, M. Ali, H. de Meer, “Multi-Access Communications in Wireless Mesh Networks by Virtualization,” in “Wireless Multi-Access Environments and Quality of Service Provisioning,” IGI Global, 2012.