Σταύρος Τουμπής

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Σπουδές

DOCTOR OF PHILOSOPHY IN ELECTRICAL ENGINEERING| 2003 | STANFORD UNIVERSITY

- Τίτλος Διατριβής: Capacity and Cross-Layer Design of Wireless Ad Hoc Networks
- Επιβλέπουσα: Prof. Andrea J. Goldsmith

MASTER OF SCIENCE IN MATHEMATICS | 2003 | STANFORD UNIVERSITY

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING | 1999 | STANFORD UNIVERSITY

ΔΙΠΛΩΜΑ ΗΛΕΚΤΡΟΛΟΓΟΥ ΜΗΧΑΝΙΚΟΥ ΚΑΙ ΜΗΧΑΝΙΚΟΥ ΥΠΟΛΟΓΙΣΤΩΝ | 1997 | ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ

- Μέσος όρος βαθμολογίας: 9.38/10.0
- Τίτλος Διπλωματικής Διατριβής: The Far Field of a Point Source Radiating in an Unbounded Biaxially Anisotropic Medium
- Επιβλέπων Διπλωματικής Διατριβής: Καθηγητής Π. Κωττής

Εργασιακή Εμπειρία

ΑΝΑΠΛΗΡΩΤΗΣ ΚΑΘΗΓΗΤΗΣ | ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ ΟΠΑ | 2020-ΠΑΡΟΝ

ΕΠΙΚΟΥΡΟΣ ΚΑΘΗΓΗΤΗΣ | ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ ΟΠΑ | 2009-2020

ΛΕΚΤΟΡΑΣ | ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΥΠΡΟΥ, ΤΜΗΜΑ ΗΛΕΚΤΡΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ ΚΑΙ ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓΙΣΤΩΝ | 2005-2009

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

TEACHING/RESEARCH ASSISTANT | STANFORD UNIVERSITY | 1997-2003

Συμμετοχή σε Ερευνητικά Προγράμματα

1. **LEMONADE (Wireless Mobile Delay-Tolerant Network Analysis and Experimentation)**
   Πλαίσιο: Ερευνητικό Έργο ΕΛ.ΙΔ.Ε.Κ για την Ενίσχυση των Μελών ΔΕΠ και Ερευνητών/τριών. Επιστημονικός Υπεύθυνος: Σ. Τουμπής, Προϋπολογισμός: 177.887,50 ευρώ. Διάρκεια: 2020-2022.
2. **SCALINCS (Scaling Stochastic Dynamics: from Microscopic Interactions to Macroscopic Phenomena)**
   Πλαίσιο: Ερευνητικό Έργο ΕΛ.ΙΔ.Ε.Κ για την Ενίσχυση των Μελών ΔΕΠ και Ερευνητών/τριών. Επιστημονικός Υπεύθυνος: Ι. Κοντογιάννης, Προϋπολογισμός: 170.000 ευρώ. Διάρκεια: 2020-2022.

3. **UNSURPASSED (Unmanned Surface Vehicles as Primary Assets for the Coast Guard)**
   Πλαίσιο: Third party contract with HORIZON 2020 RAWFIE Project. Επιστημονικός Υπεύθυνος: Σ. Τουμπής, Προϋπολογισμός: 100.000 ευρώ. Διάρκεια: 2017-2018.
4. **I-CAN (Information-Centric future mobile and wireless Access Networks)**
   Πλαίσιο: ΑΡΙΣΤΕΙΑ ΙΙ. Επιστημονικός Υπεύθυνος: Γ. Πολύζος. Διάρκεια: 2014-2015.
5. **CROWN (Optimal Control of self-Organized Wireless Networks)**
   Πλαίσιο: ΘΑΛΗΣ. Επιστημονικός Υπεύθυνος: Άρτεμης Χατζηγεωργίου. Διάρκεια: 2012-2015.
6. **DISCO (Distributed Wireless Communications)**
   Πλαίσιο: ΘΑΛΗΣ. Επιστημονικός Υπεύθυνος: Γ. Καρυστινός, Διάρκεια: 2012-2015.
7. **NETREFOUND (NETwork Research FOUNDations)**
   Πλαίσιο: FP6 FET STREP. Επιστημονικός Υπεύθυνος: Λέανδρος Τασιούλας. Διάρκεια: 2006-2009.
8. **NEWCOM (Network of Excellence in Wireless Communications)**
   Πλαίσιο: FP6 Network of Excellence in Wireless Communications. Διάρκεια: 2004-2007.

Συμμετοχή σε Επιτροπές του ΟΠΑ

1. Επιτροπή Προπτυχιακών Σπουδών Τμήματος Πληροφορικής ΟΠΑ (2010-παρόν)
2. Μονάδα Διασφάλισης Ποιότητας ΟΠΑ (2017-παρόν)
3. Επιτροπή Μεταπτυχιακού Προγράμματος Σπουδών Επιστήμης Υπολογιστών ΟΠΑ (2017-παρόν).
4. Επιτροπή Ηθικής και Δεοντολογίας της Έρευνα, ΟΠΑ (2019- παρόν, αναπληρωματικό μέλος)

Επίβλεψη διδακτορικών διατριβών

1. Άννα Σιδερά, "Design and Analysis of Novel Routing Protocols for Vehicular Delay-Tolerant Networks" (Πανεπιστήμιο Κύπρου, ολοκληρώθηκε το 2015. Συνεπιβλέποντες: S. Toumpis και Ch. Hadjicostis)

Επίβλεψη διπλωματικών εργασιών (ΜΠΣ Επιστήμης Υπολογιστών, ΟΠΑ)

1. Ιωάννης Τσελεκούνης, "A partially separable load balancing problem in wireless sensor networks," 2010.
2. Χρήστος Χριστοδουλέας, "An Overview of Routing Problems and Solutions in Delay Tolerant Networks," 2010.
3. Χρήστος Τσιάρας, "Efficient Minimization of Routing Cost in Delay Tolerant Networks", 2011.
4. Γεώργιος Κονιδάρης, "Flow Optimization in Delay Tolerant Networks by Dual Decomposition: a numerical investigation," 2011.
5. Αργύριος Τασιόπουλος, "Delay/Cost Tradeoffs in Geographically Routed Delay Tolerant Networks", 2012.
6. Άγγελος Φατούρος, "Power efficient multicasting in wireless ad hoc networks," 2012.
7. Θεοδόσης Πετρίδης, "Caching Algorithms in Cache Networks with dynamic Popularity," 2016.
8. Στυλιανός Καρύδης, "Ανάλυση και Μοντελοποίηση Αλγορίθμων Προσωρινής Αποθήκευσης Αρχείων με Δυναμική Δημοφιλία," 2016.
9. Esmerald Aliaj, "Dedalus: An Ad Hoc & DTN protocol testing framework," 2018.
10. Αλέξανδρος Τζίμας, "Techniques for Solving Delay-Tolerant Network Utility Maximization Problems," 2019.

Αυτόνομη Διδακτική Εμπειρία

1. Μαθηματικά Ι (ΟΠΑ, 11 φορές)
2. Πιθανότητες (ΟΠΑ, 10 φορές)
3. Ανάλυση Επίδοσης Συστημάτων και Δικτύων (ΟΠΑ, 3 φορές)
4. Θεωρία Πληροφορίας (ΟΠΑ, 3 φορές)
5. Μαθηματικά Υποδείγματα Παραγωγής ΙΙ (ΟΠΑ, 1 φορά)
6. Στοχαστικές Ανελίξεις (Παν. Κύπρου, 2 φορές και Πολυτεχνείο Βιέννης, 1 φορά)
7. Τυχαία Σήματα και Συστήματα (Παν. Κύπρου, 2 φορές)
8. Ασύρματα Δίκτυα Τηλεπικοινωνιών (Παν. Κύπρου, 2 φορές)
9. Θεωρία Βελτιστοποίησης και Εφαρμογές (Παν. Κύπρου, 1 φορά)
10. Ασύρματα Αδόμητα Δίκτυα (Πολυτεχνείο Βιέννης, 2 φορές και Πολυτεχνείο Καταλονίας (UPC), 1 φορά σε μάθημα 20 ωρών)

Άλλη Επιστημονική Δραστηριότητα

1. Μέλος ΔΣ, Εθνικό Κέντρο Τεκμηρίωσης
2. Steering Committee Chair του συνεδρίου 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 (συνολικά περισσότερες από 30 φορές) για διάφορα συνέδρια, για παράδειγμα RAWNET, Chants Valuetools, WONS, AOC, MEDHOCNET, IWWAN, IWCLD, Infocom MOVE, PIMRC, ICC NETSTAT, ICC, SECON, SPAWC, WiOpt, ISCC.
6. Technical Program Committee co-chair για το συνέδριο Valuetools 2008.
7. Reviewer για πολυάριθμα συνέδρια και περιοδικά.
8. Μέλος οργανωτικής επιτροπής διάφορων συνεδρίων, ενδεικτικά:
    a. Webmaster for Infocom 2007
    b. Local Organization Chair CTW 2016
9. Guest Editor σε τεύχη επιστημονικών περιοδικών
    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)

ΔΗΜΟΣΙΕΥΜΕΝΟ ΕΡΓΟ

Αναφορές στο δημοσιευμένο έργο

~2627, h-index=21 (20/2/2020, Google Scholar, περιλαμβάνονται αυτοαναφορές).

Βιβλία

1. Σ. Τουμπής, Σ. Γκιτζένης, «Λογισμός συναρτήσεων μιας μεταβλητής», ηλεκτρονικό βιβλίο, Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών, http://hdl.handle.net/11419/2177
2. Ι. Κοντογιάννης, Σ. Τουμπής, «Στοιχεία Πιθανοτήτων», ηλεκτρονικό βιβλίο, Σύνδεσμος Ελληνικών Ακαδημαϊκών Βιβλιοθηκών, http://hdl.handle.net/11419/2810

Δημοσιεύσεις σε περιοδικά

1. Y. Thomas, N. Fotiou, S. Toumpis, 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.

Δημοσιεύσεις σε συνέδρια

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.

Κεφάλαια σε Τόμους

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.