

Iordanis Koutsopoulos

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## Curriculum Vitae – June 2025

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## 1. Education

- 1999-2002: Ph.D. in Electrical and Computer Engineering, University of Maryland College Park, MD, USA.  
*Ph.D. dissertation title:* “Resource allocation issues in broadband wireless networks with OFDM signaling”.  
*Ph.D. advisor:* Leandros Tassiulas.  
Major / Minor: Communications and Signal Processing / Control Systems.
- 1997-1999: M.Sc. in Electrical and Computer Engineering, University of Maryland College Park, MD, USA.  
*M.Sc. thesis title:* “Handover and channel allocation mechanisms in mobile satellite networks”.  
*M.Sc. advisor:* Leandros Tassiulas.
- 1992-1997: B.Sc. Diploma in Electrical and Computer Engineering, National Technical University of Athens, Greece.  
*B.Sc. thesis title:* “Analysis and implementation of ray-tracing algorithms for mobile satellite communications channels”.  
*B.Sc. thesis advisor:* Philip Constantinou.

## 2. Distinctions and awards

### 2.1 Best paper awards

- **Best paper award** for paper [C105]; IEEE ECOFEC workshop (in conjunction with IEEE INFOCOM), 2019.
- **Best paper award** for paper [C87]; ACM HotPost workshop (in conjunction with ACM Mobihoc), 2016.
- **Best paper award** for paper [C59]; ACM WINTECH workshop (in conjunction with ACM Mobicom), 2013.
- **Best demo award** for demo paper [D4]; TridentCom conference, 2012.

### 2.2 Academic distinctions

- **Top 2% scientists:** Included in the list of World’s top (top 2%) scientists, published by Stanford University. The list is formed based on the publications of the specific scientists, which are most often cited by other authors globally based on standardized cross-reference indices. Years 2020, 2021, 2022, 2023.  
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6>).
- **Visiting Scholarship**, Department of Electrical Engineering, University of Washington, Seattle, USA. Collaboration with Prof. R. Poovendran, 7/2005-8/2005.
- **Graduate Research Assistantship (GRA)**, Institute for Systems Research (ISR), University of Maryland, College Park, 8/1999 – 1/2003.
- **Graduate Fellowship**, Department of Electrical and Computer Engineering, University of Maryland, College Park, 8/1997 – 6/1999.
- **Fulbright Fellowship** by the Fulbright Foundation for Graduate Studies in USA, 8/1997 – 12/2002.
- **Distinguished academic performance monetary award**, State Scholarships Foundation (IKY), 1996, 1997.

### 2.3 Service distinctions

- **Senior Member of IEEE**, 2012-present.
- **Distinguished TPC member**, IEEE INFOCOM 2019 Technical Program Committee.

### 2.5 Other

- **NSF travel grant**, INFOCOM 2001 and 2002.

- **IEEE Communications Society student travel grant**, GLOBECOM 1999.
- **Best presentation award**, ECE Department Graduate Seminar Series, University of Maryland, College Park, Fall 1999.

### 3. Professional Experience

#### 3.1 Academic and Research

- **Professor**: Department of Informatics, Athens University of Economics and Business, Athens, Greece, 9/2021-present;
- **Affiliated Faculty**: Institute of Quantum Computing and Quantum Technology, National Center for Scientific Research DEMOKRITOS, 2/2025-present;
- **Associate Professor**: Department of Informatics, Athens University of Economics and Business, Athens, Greece, 10/2016-9/2021;
- **Assistant Professor**: Department of Informatics, Athens University of Economics and Business, Athens, Greece, 2/2013-10/2016;
- **Assistant Professor**: Department of Electrical and Computer Engineering, University of Thessaly, Volos, Greece, 11/2010-2/2013.
- **Lecturer and Adjunct Lecturer**: Department of Electrical and Computer Engineering, University of Thessaly, Volos, Greece, 2005-2010 and 2003-2005 respectively.
- **Affiliated Faculty**: Centre for Research and Technology Hellas (CERTH), Informatics and Telematics Institute, 2005-2015.
- **Visiting Scholar**: University of Washington, Seattle, WA, 6/2005-8/2005. Collaboration on intrusion detection and jamming attack modeling for wireless networks.
- **Affiliated Faculty**: Centre for Research and Technology Thessaly (CERTETH), Volos, Greece, 2009-2011.
- **Affiliated Faculty**: Institute for Accelerating Systems and Applications (IASA), National and Kapodestrian University of Athens (NKUA), Athens, Greece, 2009-2011.

#### 3.2. Industry experience in Europe and USA

- **Visiting Research Scientist, Yahoo! Research Labs, Barcelona**, 9/2012 - 12/2012. Research collaboration on topics related to online social networks, Q&A systems e.g. Yahoo! Answers, web crawling, social network influence.
- **Research Intern, Aperto Networks Inc, Milpitas, CA**, 5/2000-8/2000. Participation in research project on design and analysis of cross-layer adaptation algorithms (PHY-layer modulation, FEC coding rate, power control and link-layer ARQ protocol, packet size) for the Aperto Fixed Broadband Wireless link. Performance evaluation of algorithms with OPNET simulation tool. These algorithms were part of the technology *OptimaLink*® that was incorporated into products PacketWave of Aperto (subscriber unit, Base Station unit) for high performance fixed wireless broadband access.
- **Research Intern, HRL Laboratories, Malibu, CA**, 5/1999- 8/1999. Research in DARPA project “*Small Unit Operation – Deployable and Adaptive Ad-hoc Mobile Networks (SUO-DAMAN)*”. Design of broadcast routing protocols for control information dissemination in wireless ad-hoc networks. Performance evaluation in terms of bandwidth consumption, delay and robustness to topology changes.

- **Research Intern, Hughes Network Systems (HNS), Germantown, MD, 5/1998-8/1998.** Research in project “*Intermediate Circular Orbit (ICO) Satellite System*” of ICO Global Communications Ltd. Design of handover algorithms for Mobile Satellite System ICO. Simulation in C++ of dynamic operation of the ICO satellite system (satellites, terrestrial and airborne user terminals, wireless link, handover, channel allocation, call blocking). Design and simulation of channel allocation algorithms for improved call blocking probability.

### 3.3. Other related industry experience

- **Intern, Hellenic Telecommunications organization (OTE), Athens, 6/1997-8/1997.** Study of ISDN and packet switched network HELLASPAC.
- **Intern, Public Power Corporation (DEH), Athens, 4/1997-6/1997 and 7/1995-10/1995.** Participation in joint project with OTE for development of a wireless communication network between power production, distribution and management centers.
- **Intern, Petrola Hellas Refinery, Athens, 6/1996-9/1996.** Optical fiber network design for the refinery.

## 4. Publications

**50 journal** publications, **152 conference** publications.

### 4.1. Overview of Publication Record

- **50 journal** publications have appeared in:
  - IEEE/ACM Transactions on Networking (4),
  - IEEE Journal on Selected Areas in Communications (4),
  - IEEE Transactions on Wireless Communications (4),
  - IEEE Transactions on Communications (2),
  - IEEE Transactions on Control of Networked Systems (1)
  - IEEE Transactions on Automatic Control (1),
  - IEEE Transactions on Mobile Computing (5),
  - IEEE Transactions on Network and Service Management (2)
  - IEEE Transactions on Smart Grid (1)
  - IEEE Transactions on Vehicular Technology (1),
  - IEEE Communications Magazine (3),
  - IEEE Network Magazine (1),
  - IEEE Wireless Communications Magazine (1),
  - IEEE Communications Surveys (1),
  - IEEE Access (3),
  - IEEE Communications Letters (1),
  - ACM Energy Informatics Review (2),
  - ACM SIGMOBILE Mobile Computing and Communications Review (1),
  - ACM Transactions on Information and System Security (1),
  - Springer Knowledge and Information Systems (KAIS) Journal (1)
  - Elsevier Performance Evaluation (1),
  - Elsevier Computer Networks (3),
  - Elsevier Computer Communications (3),

- Elsevier Ad hoc Networks (1),
- Elsevier International Journal on Human-Computer Studies (1).
- EURASIP Journal on Signal Processing (1).
- **152** conference publications have appeared in:
  - IEEE INFOCOM (13),
  - ACM Mobihoc (3),
  - IEEE WOWMOM (3),
  - ACM ECML/PKDD (2),
  - ACM CIKM (1),
  - IEEE IWQoS (3),
  - IEEE MILCOM (2)
  - IEEE SECON (1),
  - ACM E-Energy (2),
  - IFIP Networking (2),
  - IFIP PERFORMANCE (2),
  - IEEE MDM (1),
  - IEEE WiOPT (5),
  - IEEE GLOBECOM (6),
  - IEEE ICC (6),
  - IEEE ICMLCN (2)
  - ACM Mobihoc HotPost workshop (1),
  - IEEE WCNC (4),
  - IEEE CLOUDNET (1),
  - ACM VALUETOOLS (1),
  - IEEE PIMRC (1),
  - IEEE SmartGridComm (4),
  - IEEE WiOPT WinMEE workshop (2),
  - IEEE WiOPT RAWNET workshop (2),
  - ACM WinTECH workshop (2),
  - ACM Mobicom WISE Workshop (1),
  - NetGCOOP (4),
  - and other conferences and workshops.

#### 4.2. Publications per research area

- **Reinforcement Learning applications:**

Journal papers:

Conference papers: C145

- **Quantum Networks:**

Journal papers:

Conference papers: C146

- **Continual Learning**

Journal papers:

- Conference papers: C143, C128
- **ML and resource allocation**
  - Journal papers:
  - Conference papers: C144
- **Explainable AI**
  - Journal papers:
  - Conference papers: C147, C137
- **Federated Learning**
  - Journal papers:
  - Conference papers: C135, C132, C131, C121
- **Software-Defined Networking**
  - Journal papers: J50, J46
  - Conference papers: C138, C133, C130, C127,
- **Applications of online learning in resource allocation**
  - Journal papers:
  - Conference papers: C129, C125, C123, C120, C115, C114
- **Content caching in edge networks**
  - Journal papers: J41, J40, J38
  - Conference papers: C122, C112, C108, C107, C100, C89, C82, C74
- **Edge computing**
  - Journal papers: J44
  - Conference papers: C99, C83
- **Mobile Crowdsensing**
  - Journal papers: J37
  - Conference papers: C103, C97, C96, C86, C85, C81, C76, C73, C54
- **Community networks and shared network infrastructures**
  - Journal papers: J39
  - Conference papers: C126, C110, C106, C105, C95, C94
- **Recommender systems**
  - Journal papers: J43
  - Conference papers: C117, C98, C77, C43
- **Online advertising**
  - Journal papers: -
  - Conference papers: C102, C92, C91, C88, C87
- **Machine Learning and Artificial Intelligence applications**
  - Journal papers: J47, J49
  - Conference papers: C140, C139, C134, C118, C111, C109, C104, C79, C38
- **Smart energy grid**
  - Journal papers: J45, J34, J33, J22, J18, J16
  - Conference papers: C142, C141, C116, C69, C68, C67, C45, C41
- **Cloud computing resource allocation and network economics**
  - Journal papers: J42, J31, J23
  - Conference papers: C84, C80, C78, C71, C70, C56, C42



- **Resource management in wireline networks**

Journal papers: J36, J35

Conference papers: C61, C36

- **Wireless network resource allocation and optimization**

Journal papers: J29, J28, J15, J11, J10, J7, J6, J5, J4

Conference papers: C113, C93, C90, C75, C72, C64, C63, C62, C60, C55, C47, C46, C32, C26, C23, C18, C17, C13, C11, C10, C9, C8, C7, C6

- **Cross-layer resource allocation in multi-antenna communication systems**

Journal papers: J19, J8, J3, J2

Conference papers: C29, C27, C21, C16, C15, C14, C12

- **Network economics for spectrum and wires network resource allocation**

Journal papers: J48, J30, J17, J14

Conference papers: C125, C119, C57, C52, C51, C34

- **Wireless network attack modeling and detection**

Journal papers: J32, J12, J9

Conference papers: C50, C40, C30, C22, C20

- **Sensor networks**

Journal papers: J27, J20

Conference papers: C35, C33, C31, C19

- **Peer-to-peer networks**

Journal papers: J25, J13

Conference papers: C28, C25, C24

- **Wireless network experimentation**

Journal papers: J26, J24, J21

Conference papers: C101, C66, C65, C59, C58, C53, C49, C48, C44, C39, C37,

- **Mobile satellite communication systems**

Journal papers: J1

Conference papers: C5, C4, C3, C2, C1

#### 4.3. Research impact

##### 4.3.1. Citations

- 6.410 citations, as of early June 2025 (source: Google Scholar).
- Google Scholar Profile: [http://scholar.google.gr/citations?user=Bq\\_GqyIAAAAJ&hl=en](http://scholar.google.gr/citations?user=Bq_GqyIAAAAJ&hl=en)
- h-index = 36

##### 4.3.2. Impact and diffusion of research results to industry

- The results of the work [C57] on auction mechanisms for Question and Answer systems were communicated to business units of Yahoo! for the next generation of Yahoo! Answers platform.
- The methodology of the works [J37] and [C76] on task assignment to mobile crowdsensing users was used in the context of a Yahoo! internal project on photography crowdsensing in the city of Barcelona.
- The mobile app developed in [C94] destined to be a farmer assistant app runs over the wireless community network of Sarantaporo.gr and is used by the local population.

- The research work [C77] on social diffusion-aware recommender systems was presented to the business units of Tumblr to be considered for their recommender system.
- The research in [C92] about machine learning based predictions for advertisement bidding optimization was performed in the context of a private project with the startup Intelligent Banker in Denmark and was incorporated in their bidding policy.
- The link transmission rate adaptation algorithm in [C10], [J11], designed by the applicant while in a research internship at Aperto Inc., CA is incorporated in wireless mesh / WiMAX products of Aperto Inc (<https://www.crunchbase.com/organization/aperto-networks#section-overview>)
- The research in [C60], [C55] on buffer-aided energy aware methods for relay selection was accomplished in cooperation with Samsung UK in the context of the European project CONECT and was communicated via the standardization group of Samsung to IEEE 802.16 bodies.
- The sequential detection algorithms in [J12], [C22] developed by the applicant and his collaborators at University of Washington and Boeing PhantomWorks initiated a series of internal Boeing PhantomWorks projects for counterfeiting wireless jamming attacks while on planes.

#### 4.4. Journal publications list

- J50. Y. Papageorgiou, M. Karaliopoulos, K. Choumas, and I. Koutsopoulos, "Multiple Controller Placement and TDMA Link Scheduling in Software Defined Mobile Ad Hoc Networks", to appear, *IEEE Transactions on Network and Service Management*, April 2025.
- J49. S. Chadoulos, I. Koutsopoulos and G.C. Polyzos, "Deep4Ener: Energy demand forecasting for unseen consumers with scarce data using a deep learning model", *ACM Energy Informatics Review*, vol.3, no.1, pp.2-13, March 2023.
- J48. M. Karaliopoulos, G. Cheirmpas and I. Koutsopoulos, "Sharing data plans for cellular mobile data access", *IEEE Transactions on Network and Service Management*, vol. 20, no.3, pp.2544-2557, Sept. 2023.
- J47. M. Karaliopoulos, L. Tsolas, I. Koutsopoulos, M. Halkidi, S. van Hoeve, P. Conradie, "Beyond clustering: rethinking the segmentation of energy consumers when nudging them towards energy-saving behavior", *ACM Energy Informatics Review*, vol.2, no.4, pp. 28-43, December 2022.
- J46. D. Kafetzis, S. Vasilaras, G. Vardoulas and I. Koutsopoulos, "Software-Defined Networking meets Software-Defined Radio in Mobile ad hoc networks: State of the art and future directions", *IEEE Access*, vol. 10, pp.9989-10014, Jan. 2022.
- J45. S. Chadoulos, I. Koutsopoulos and G.C. Polyzos, "Mobile Apps meet the smart energy grid: A survey on consumer engagement, and Machine Learning applications", *IEEE Access*, vol.8, pp. 219632-219655, Dec. 2020.
- J44. G. Koutitas, S. Vyas, C. Vyas, S. Jadon and I. Koutsopoulos, "Practical methods for efficient resource utilization in Augmented Reality services", *IEEE Access*, vol.8, pp. 220263-220273, Dec. 2020.
- J43. M. Halkidi and I. Koutsopoulos, "Recommender systems with selfish users", *Knowledge and Information Systems (KAIS) Journal, Springer*, vol.62, pp.3239-3262, March 2020.
- J42. G. Darzanos, I. Koutsopoulos and G.D. Stamoulis, "Cloud Federations: Economics, Games and Benefits", *IEEE/ACM Transactions on Networking*, vol.27, no.5, pp.2111-2124, Oct. 2019.
- J41. K. Poularakis, G. Iosifidis, A. Argyriou, I. Koutsopoulos and L. Tassiulas, "Distributed caching algorithms in the realm of layered video streaming", *IEEE Transactions on Mobile Computing*, vol.18, no.4, pp.757-770, April 2019.

- J40. L. Chatzileftheriou, M. Karaliopoulos and I. Koutsopoulos, "Jointly Optimizing Content Caching and Recommendations in Small Cell Networks", *IEEE Transactions on Mobile Computing*, vol.18, no.1, pp.125-138, Jan. 2019.
- J39. P. Micholia, M. Karaliopoulos, I. Koutsopoulos, L. Navarro, R. Baig, D. Boucas, M. Michalis, P. Antoniadis, "Community networks and Sustainability: A Survey of perceptions, practices and proposed solutions", *IEEE Communications Surveys*, vol.20, no.4, Q4, 2018.
- J38. L. Gkatzikis, V. Sourlas, C. Fischione and I. Koutsopoulos, "Low-complexity content replication through clustering in content-delivery networks", *Elsevier Computer Networks*, vol.121, pp.137-151, July 2017.
- J37. P. Micholia, M. Karaliopoulos, I. Koutsopoulos, L.M. Aiello, G.D.F. Morales and D. Quercia, "Incentivizing social media users for mobile crowdsourcing", *Elsevier International Journal on Human-Computer Studies*, vol.102, pp. 4-13, June 2017.
- J36. G. Iosifidis, I. Koutsopoulos and G. Smaragdakis, "Distributed storage control algorithms for Dynamic Networks", *IEEE/ACM Transactions on Networking*, vol.25, no.3, pp.1359-1372, June 2017.
- J35. P. Giaccone, M. Pretti, D. Syrivelis, I. Koutsopoulos and L. Tassiulas, "Design and implementation of a belief-propagation scheduler for multicast traffic in input-queued switches", *Elsevier Computer Communications*, vol.103, pp.141-152, May 2017.
- J34. T. Papaioannou, V. Hatzi and I. Koutsopoulos, "Optimal Design of Serious Games for consumer engagement in the smart grid", *IEEE Transactions on Smart Grid*, vol.9, no.2, pp.1241-1249, March 2018. DOI: 10.1109/TSG.2016.2582298.
- J33. A. Anastopoulou, I. Koutsopoulos and G.D. Stamoulis, "Optimal targeting and contract offering for load curtailment in Nega-watt markets", *IEEE Transactions on Control of Networked Systems*, vol.4, no.4, pp.805-815, Dec. 2017.
- J32. K. Pelechrinis, I. Koutsopoulos, Y. Broustis and S. Krishnamurthy, "Jammer localization in wireless networks: An Experimentation-driven Approach", *Elsevier Computer Communications*, vol.86, pp.75-85, July 2016.
- J31. V. Hatzi, B. B. Cambazoglu and I. Koutsopoulos, "Optimal web page download scheduling policies for green web crawling", *IEEE Journal on Selected Areas in Communications* (Green Communications series), vol.34, no.5, pp. 1378-1388, May 2016.
- J30. O. Korkak, G. Iosifidis, T. Alpcan, I. Koutsopoulos, "Operator collusion and market regulation policies for wireless spectrum management", vol.15, no.10, pp. 2537-2549, *IEEE Transactions on Mobile Computing*, October 2016.
- J29. N.D. Chatzidiamantis, E. Matskani, L. Georgiadis, I. Koutsopoulos, L. Tassiulas, "Optimal Primary-Secondary user cooperation policies in Cognitive Radio Networks", *IEEE Transactions on Wireless Communications*, vol. 14, No.6, pp.3443-3455, June 2015.
- J28. D. Saad, C.-H. Yeung, G. Rodolakis, D. Syrivelis, I. Koutsopoulos, L. Tassiulas, R. Urbanke, P. Giaccone, E. Leonardi, "Physics-inspired Methods for Networking and Communications", *IEEE Communications Magazine*, vol.52, no.11, pp.144-151, Nov. 2014.
- J27. I. Koutsopoulos and M. Halkidi, "Distributed energy-efficient estimation in Spatially Correlated wireless sensor networks", *Elsevier Computer Communications*, vol.45, pp.47-58, June 2014.
- J26. S. Keranidis, G. Kazdaridis, V. Passas, T. Korakis, I. Koutsopoulos and L. Tassiulas, "NITOS energy monitoring framework: Real-time power monitoring in Experimental Wireless Network Deployments", *ACM SIGMOBILE Mobile Computing and Communications Review (MC2R)*, vol.18, no.1, pp. 64-74, January 2014.
- J25. I. Koutsopoulos, L. Tassiulas and L. Gatzikis, "Client and server games and Nash equilibria in peer-to-peer networks", *Elsevier Computer Networks*, vol.67, pp.201-218, 2014.

- J24. S. Keranidis, D. Giatsios, T. Korakis, I. Koutsopoulos, L. Tassiulas, T. Rakotoarivelo, M. Ott and T. Parmentelat, "Experimentation on end-to-end performance aware algorithms in the federated environment of the heterogeneous PlanetLab and NITOS test-beds", *Elsevier Computer Networks* (Special Issue on Future Internet Test-beds), vol.63, pp. 48-67, 2014.
- J23. L. Gatzikis, I. Koutsopoulos, "Migrate or not? Exploring Dynamic Task Migration in Cloud Computing Systems", *IEEE Wireless Communications Magazine*, vol.20, no.3, June 2013.
- J22. L. Gkatzikis, I. Koutsopoulos and T. Salonidis, "The role of Aggregators in Smart Grid Demand Response markets", *IEEE Journal on Selected Areas in Communications*, vol.31, no.7, pp. 1247-1257, July 2013.
- J21. K. Choumas, S. Keranidis, T. Korakis, I. Koutsopoulos, L. Tassiulas, F. Juraschek, M. Gunes, E. Baccelli, P. Misioerek, A. Szwabe, T. Salonidis, H. Lundgren, "Optimization-driven Multi-hop Network Design and Experimentation: The Approach of the FP7 project OPNEX", *IEEE Communications Magazine*, vol. 50, no.6, pp.122-130, June 2012.
- J20. I. Koutsopoulos and S. Stanczak, "The impact of PHY rate control on Energy-efficient estimation in wireless sensor networks", *IEEE Transactions on Wireless Communications*, vol.11, no.9, pp. 3261-3271, Sept. 2012.
- J19. I. Koutsopoulos and L. Tassiulas, "Fast Neighbor Positioning and Medium Access in Wireless Networks with Directional Antennas", *Elsevier Ad hoc Networks*, (Special Issue on Cross-layer design in Ad-hoc and Sensor Networks), vol.11, pp. 614-624, 2013.
- J18. I. Koutsopoulos and L. Tassiulas, "Optimal control policies for power demand scheduling in the Smart Grid", *IEEE Journal on Selected Areas in Communications* (Smart Grid Series), vol.30, no.6, pp.1049-1060, July 2012.
- J17. G. Iosifidis and I. Koutsopoulos, "Challenges in auction theory driven spectrum management", *IEEE Communications Magazine*, vol.49, no.8, pp.128-135, Aug. 2011.
- J16. I. Koutsopoulos and L. Tassiulas, "Challenges in Demand load control for the Smart Grid", *IEEE Network Magazine*, vol.25, no.5, pp.16-21, Nov. 2011.
- J15. R. Oliveira and I. Koutsopoulos, "Maximum throughput access control in wireless LANs through Max-weight inspired policies", *IEEE Transactions on Vehicular Technology*, vol. 59, no.6, pp. 3036-3046, July 2010.
- J14. G. Iosifidis and I. Koutsopoulos, "Double auction mechanisms for resource allocation in autonomous networks", *IEEE Journal on Selected Areas in Communications*, vol.28, no.1, pp.95-102, Jan. 2010.
- J13. I. Koutsopoulos and G. Iosifidis, "A framework for distributed bandwidth allocation in peer-to-peer networks", *Elsevier Performance Evaluation Journal*, vol.67, no.4, pp.285-298, April 2010.
- J12. M. Li, I. Koutsopoulos and R. Poovendran, "Optimal jamming attacks and network defense strategies in wireless sensor networks", *IEEE Transactions on Mobile Computing*, vol.9, no.8, pp.1119-1133, Aug. 2010.
- J11. I. Koutsopoulos and L. Tassiulas, "Optimal transmission rate control policies in a wireless link under partial state information", *IEEE Transactions on Automatic Control*, vol.55, no.1, pp.127-131, Jan. 2010.
- J10. I. Koutsopoulos and L. Tassiulas, "Carrier assignment algorithms for OFDM-based multi-carrier wireless networks with channel adaptation", *IEEE Transactions on Communications*, vol. 56, no. 12, pp.2190-2199, Dec. 2008.
- J9. S. Radosavac, G. Moustakides, J.S. Baras and I. Koutsopoulos, "An analytical framework for modeling and detecting access layer misbehavior in wireless networks", *ACM Transactions on Information and System Security*, vol.11, no.4, July 2008.
- J8. I. Koutsopoulos and L. Tassiulas, "The impact of space division multiplexing on resource allocation: a unified treatment of TDMA, OFDMA and CDMA", *IEEE Transactions on Communications*, vol.56, no.2, pp.260-269, February 2008.

- J7. I. Koutsopoulos and L. Tassiulas, "Joint optimal access point selection and channel assignment in wireless networks", *IEEE/ACM Transactions on Networking*, vol. 15, no.3, pp.521-532, June 2007.
- J6. I. Koutsopoulos, Ulas C. Kozat and L. Tassiulas, "Dynamic resource allocation in deterministic-code CDMA systems with multi-rate provisioning", *IEEE Transactions on Mobile Computing*, vol.5, no.12, pp.1780-1792, December 2006.
- J5. U.C. Kozat, I. Koutsopoulos and L. Tassiulas, "Cross-layer design and power-efficiency considerations for QoS provisioning in multi-hop wireless networks", *IEEE Transactions on Wireless Communication*, vol.5, no.11, pp.3306-3315, November 2006.
- J4. I. Koutsopoulos and L. Tassiulas, "Cross-layer adaptive techniques for throughput enhancement in wireless OFDM-based networks", *IEEE/ACM Transactions on Networking*, vol.14, no.5, pp.1056-1066, October 2006.
- J3. I. Koutsopoulos and L. Tassiulas, "Adaptive channel assignment in SDMA-based wireless LANs with transceiver resource limitations", *EURASIP Journal on Signal Processing*, Special Issue on Signal processing-assisted cross-layer designs, vol.81, No.8, pp.1879-1895, August 2006.
- J2. I. Koutsopoulos, K.P. Tsoukatos and K. Aggelis, "Physical-layer techniques and maximum throughput scheduling with antenna arrays", *IEEE Communications Letters*, vol. 10, no.6, pp. 465-467, May 2006.
- J1. I. Koutsopoulos and L. Tassiulas, "Efficient resource utilization through carrier grouping for half-duplex communication in GSM-based MEO mobile satellite networks" *IEEE Transactions on Wireless Communications*, vol.1, no.2, pp.342-352, April 2002.

#### 4.4.1. Journal papers under review

- SJ1. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Personalized Federated Learning with exact Stochastic Gradient Descent", submitted to *Springer Neural Computing and Applications journal*, Jan 2025.

#### 4.5. Books

- B1. I. Koutsopoulos, T.G. Papaioannou and V. Hatzi (2016), "Modeling and Optimization of the Smart Grid Ecosystem", *Foundations and Trends in Networking*: Vol. 10: No. 2-3, pp 115-316, NOW Publishers.

#### 4.6. Book Chapters

- BC3. L. Chatzieftheriou, M. Karaliopoulos and I. Koutsopoulos, "On the joint optimization of content caching and recommendations", in "Edge caching for mobile networks" (Edited by V. Poor and W. Chen), The Institution of Engineering and Technology (IET), 2021.
- BC2. G. Iosifidis and I. Koutsopoulos, "Auction driven market mechanisms for dynamic spectrum management", in "Mechanisms and Games for Dynamic Spectrum Allocation" (Edited by T. Alpcan, H. Boche, M. Honig, H. Vincent Poor), Cambridge University Press, 2013.
- BC1. C.-H. Haro, Y. Eldar, L. Galluccio, G. Iosifidis, M. Kountouris, I. Koutsopoulos, X. Matamoros, S. Palazzo and S. Shamaï, "The Ultimate Limits of Wireless Networks" in *NEWCOM++ Vision Book*, Springer, 2012.

#### 4.7. Conference publications list

- C152. D. Kafetzis, N. Fotiou, S. Argyropoulos, J. Nasreddine and I. Koutsopoulos, "Video quality Monitoring for Remote Autonomous Vehicle Control", *IEEE International Mediterranean Conference on Communications and Networking (MeditCom)*, 2025.
- C151. Y. Papageorgiou, Y. Thomas, A. Filippakopoulos, R. Khalili and I. Koutsopoulos, "Collaborative Split Federated Learning with Parallel Training and Aggregation", *IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI)* 2025.

- C150. S. Chadoulos, I. Koutsopoulos and G.C. Polyzos, "Reinforcement Learning with partially defined rewards and Human Feedback for Energy Efficiency Recommendations", *International Workshop on Advanced Deep Reinforcement Learning in Energy Systems (ADELE)*, in *ACM International Conference on Future and Sustainable Energy Systems (e-Energy)* 2025.
- C149. D. Kafetzis, R. Khalili and I. Koutsopoulos, "Large Language Model partitioning for low-latency inference at the edge", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2025.
- C148. T. Tsouparopoulos and I. Koutsopoulos, "Explainability and Continual Learning meet Federated Learning at the network edge", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt) 2025 (invited paper)*.
- C147. F. Charalambakos, T. Tsouparopoulos and I. Koutsopoulos, "Joint Explainability-Performance optimization with surrogate models for AI-driven edge services", *IEEE International Conference on Machine Learning in Communications and Networking (ICMLCN)* 2025, Barcelona, Spain.
- C146. I. Koutsopoulos, "Optimal Fidelity-aware entanglement distribution in linear quantum networks", *IEEE Military Communications Conference (MILCOM)* 2024, Washington DC, USA.
- C145. S. Chadoulos, O. Diamantopoulos, I. Koutsopoulos, G.C. Polyzos and N. Ipiotis, "EMS-env: A Reinforcement Learning framework for Residential Energy Efficiency Recommendations", *IEEE International Conference on Communication, Control and Computing Technologies for Smart Grids (SmartGridComm)* 2024, Oslo, Norway.
- C144. D. Kafetzis and I. Koutsopoulos, "DNN partitioning and inference task offloading in 6G resource-constrained networks", *European Communications and Networking Conference (EuCNC) and 6G Summit* 2024, Antwerp, Belgium.
- C143. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Kullback-Leibler Reservoir Sampling for Fairness in Continual Learning", *IEEE International Conference on Machine Learning for Communications and Networking (IEEE ICMLCN)* 2024, Stockholm, Sweden.
- C142. A. Chitos, M. Karaliopoulos, S. Pelka, M. Halkidi and I. Koutsopoulos, "Nudging households for energy savings via smartphone apps: an empirical study", *European Conference on Behavior and Energy Efficiency (BEHAVE)* 2023, Maastricht, Netherlands.
- C141. N. Fotiou, S. Chadoulos, I. Koutsopoulos, V. Siris and G.C. Polyzos, "Access control for interoperable energy management systems using Verifiable Credentials", *International Symposium on Intelligent and Trustworthy Computing, Communications, and Networking (ITCCN)*, in *IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)* 2023, Exeter, UK.
- C140. I. Fourfouris, M. Karaliopoulos, D. Kafetzis, G. Vardoulas, A. Georgiadis, S. Vassilaras and I. Koutsopoulos, "Revisiting the OLSRv2 Protocol Optimization in SDN-Enabled Tactical MANETs", *IEEE Military Communications Conference (MILCOM)* 2023, Boston.
- C139. I. Koutsopoulos, "Learning the Jointly Optimal Routing and Controller Placement Policy in Mobile Software-Defined Networks", *IEEE Military Communications Conference (MILCOM)* 2023, Boston.
- C138. D. Kafetzis and I. Koutsopoulos, "Joint Controller Placement and Intrusion Detection System Enablement in Software-Defined Mobile Ad-hoc Networks", *European Wireless (EW)* 2023, Rome.
- C137. F. Charalambakos and I. Koutsopoulos, "Exploring Multi-task learning for Explainability", *International Workshop on Explainable and Interpretable Machine Learning (XI-ML)*, in *European Conference on Artificial Intelligence (ECAI)* 2023, Krakow, Poland.



- C136. S. Chadoulos, S. Athanasoulas, S. Kalogridis, N. Ipiotis, O. Diamantopoulos Pantaleon, I. Koutsopoulos and G. C. Polyzos, "Energy optimization of building IoT infrastructures in a stratified way", *International Conference on Smart and Innovative energy management (SiNERGY)* 2023, Belgrade, Serbia.
- C135. T. Tsouparopoulos and I. Koutsopoulos, "On improving accuracy in Federated Learning using GANs-based pre-training and Ensemble Learning", *Workshop on Advancements in Federated Learning (WAFL), in European Conference on Machine Learning and Principles and Practice of knowledge discovery in databases (ECML/PKDD)*, 2023, Turin, Italy.
- C134. F. Charalambakos, T. Tsouparopoulos, Y. Papageorgiou, G. Bologna, A. Panisson, A. Perotti and I. Koutsopoulos, "Research Challenges in Trustworthy Artificial Intelligence and Computing for Health: the Case of the PRE-ACT Project", *European Communications and Networking Conference (EuCNC) and 6G Summit 2023*, Gothenburg, Sweden.
- C133. Y. Papageorgiou, J.F. Loevenich, M. Karaliopoulos, P. H.L. Rettore, R.R.F. Lopes and I. Koutsopoulos, "Coordinating the SDN and TDMA planes in Software-Defined Tactical MANETs with adaptive coding and modulation", *International Conference on Military Communications and Information Systems (ICMCIS)* 2023, Skopje, N. Macedonia.
- C132. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Personalized Federated Learning with Exact Stochastic Gradient Descent updates", *Adaptive and Learning Agents (ALA) workshop, in International Conference on Autonomous Agents and Multi-agent Systems (AAMAS)* 2023, London, UK.
- C131. E. Charteros and I. Koutsopoulos, "Lay Importance on the Layer: Federated Learning for non-i.i.d data with Layer-based Regularization", *International Workshop on Distributed Machine Learning and Fog Networks (FOGML), in IEEE International Conference on Computer Communications (INFOCOM)* 2023, online.
- C130. Y Papageorgiou, M. Karaliopoulos and I. Koutsopoulos, "Controller Placement and TDMA Link Scheduling in Software Defined Wireless Multihop Networks", *IEEE International Conference on Communications (ICC)*, 2023, Rome. Italy.
- C129. I. Koutsopoulos, "Online learning of Image Recognition Task Offloading Policies over Wireless Links", *IEEE International Conference on Communications (ICC)*, 2023, Rome. Italy.
- C128. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Online continual learning from imbalanced data with Kullback-Leibler-loss based replay buffer updates", *Human in the Loop (HiLL) workshop, in Conference on Neural Information Processing Systems (NeurIPS)* 2022, New Orleans.
- C127. I. Papageorgiou, M. Karaliopoulos and I. Koutsopoulos, "Joint Controller Placement and TDMA Scheduling SDN-enabled tactical MANETs", *IEEE Military Communications Conference (MILCOM)*, 2022, Washington DC.
- C126. M. Karaliopoulos and I. Koutsopoulos, "Empowering synergies of communities with service providers for the bottom-up Deployment of Network Infrastructures", *ACM International Conference on Modeling, analysis and simulation of wireless and mobile systems (MsWiM)* 2022, Montreal, Canada.
- C125. L.E. Chatzieftheriou and I. Koutsopoulos, "Jointly Learning Optimal Task Offloading and Scheduling Policies for Mobile Edge Computing", *International Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET), in International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2022, Turin, Italy.
- C124. G. Darzanos, I. Koutsopoulos, K. Papakonstantinopoulou and G.D. Stamoulis, "Economics of Multi-Operator Network Slicing", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2022, Turin, Italy.

- C123.L.E. Chatzieftheriou, C.-F. Liu, I. Koutsopoulos, M. Bennis and M. Debbah, "Online learning for Industrial IoT: The Online Convex Optimization perspective", *Workshop on Intelligence Distribution of Computing in Cloud Continuum (ID3C)*, in *IEEE International Mediterranean Conference on Communications and Networking (MeditCom)*, 2022, Athens, Greece.
- C122.K. Ntougias, C. Psomas, E. Demarchou, I. Krikidis and I. Koutsopoulos, "Joint dynamic wireless edge caching and user association: A Stochastic optimization approach", *International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)*, 2022, Oulu, Finland.
- C121.T. Tsouparopoulos and I. Koutsopoulos, "Implementation of Federated Learning on Resource-constrained devices: Lessons learned", *Network Intelligence (NI) Workshop*, in *IFIP Networking Conference 2022*, Catania, Italy.
- C120.I. Koutsopoulos, "Learning the Optimal Controller Placement in Mobile Software-Defined Networks", *International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM)*, 2022, Virtual.
- C119.G. Cheirmpas, M. Karaliopoulos and I. Koutsopoulos, "Optimizing Shared data plans for mobile data access", *International Teletraffic Congress 33 – Networks and Services (ITC) 2021*, Virtual.
- C118.S. Chadoulos, I. Koutsopoulos and G.C. Polyzos, "One model fits all: individualized household energy demand forecasting with a single deep-learning model", *International workshop on Applied Machine Learning for Intelligent Energy Systems (AMLIES)*, in *ACM International Conference on Future and Sustainable Energy Systems (e-Energy) 2021*, Virtual.
- C117.I. Koutsopoulos and M. Halkidi, "Optimization of multi-stakeholder recommender systems for diversity and coverage", *International Conference on Artificial Intelligence Applications and Innovations (AIAI)*, 2021, Virtual.
- C116.A. Anastopoulou, G.D. Stamoulis and I. Koutsopoulos, "Efficient peer-to-peer energy trading mechanisms with unreliable prosumers", *ACM International Conference on Future and Sustainable Energy Systems (e-Energy) 2021*, Virtual.
- C115. S. Hadoulos and I. Koutsopoulos, "Learning the optimal energy supply pattern with online convex optimization", *IEEE International Conference on Communications (ICC) 2021*, Virtual.
- C114. L. Chatzieftheriou, A. Destounis, G. Paschos and I. Koutsopoulos, "Blind optimal user association in small-cell networks", *IEEE International Conference on Computer Communications (INFOCOM) 2021*, Virtual.
- C113. I. Koutsopoulos, "The impact of baseband functional splits on resource allocation in 5G Radio access networks", *IEEE International Conference on Computer Communications (INFOCOM) 2021*, Virtual.
- C112. G. Darzanos, L. Chatzieftheriou, M. Karaliopoulos and I. Koutsopoulos, "Content preference-aware user association and caching in cellular networks", *Workshop on Content Caching and Delivery in Wireless Networks (CCDWN)*, in *International Symposium on Modeling and Optimization of Mobile, Ad-hoc and Wireless Networks (WiOpt) 2020*, Virtual.
- C111. D. Kafetzis, Y. Fourfouris, S. Argyropoulos and I. Koutsopoulos, "UAV-assisted aerial survey of railways using Deep Learning", *International Conference on Unmanned Aircraft Systems (ICUAS) 2020*, Athens, Greece.
- C110.M. Karaliopoulos and I. Koutsopoulos, "Collective subscriptions: a novel funding tool for crowdsourced network infrastructures", *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM) 2020*, Cork, Ireland.
- C109. E. Harteros and I. Koutsopoulos, "Edge computing for having an edge on cancer treatment: a mobile app for breast image analysis", *IEEE Workshop on IoT Enabling Technologies in Healthcare (IoT-Health)*, in *IEEE International Conference on Communications (ICC) 2020*, Dublin, Ireland.



- C108. M. Karaliopoulos, I. Koutsopoulos, L. Chatziefleftheriou and G. Darzanos, "On the joint content caching and user association problem in small cell networks", *IEEE Workshop on Ultra-High speed, low latency and massive communication for futuristic 6G Networks (ULMC6GN)*, in *IEEE International Conference on Communications (ICC)* 2020, Dublin, Ireland.
- C107. G. Papaioannou and I. Koutsopoulos, "Tile-based caching optimization for 360° videos", *ACM International Symposium on Mobile Ad-Hoc Networking and Computing (MobiHoc)* 2019, Catania, Italy.
- C106. M. Karaliopoulos and I. Koutsopoulos, "Infrastructure and service provider games in crowdsourced networks", *ACM International Symposium on Mobile Ad-Hoc Networking and Computing (MobiHoc)* 2019, Catania, Italy.
- C105. I. Koutsopoulos, A. Anastopoulou and M. Karaliopoulos, "Economics of investment and use of shared network infrastructures", *IEEE Workshop on Economics of Cloud, Fog and Edge Computing (ECOFEC)*, in *IEEE International Conference on Computer Communications (INFOCOM)* 2019, Paris, France. **(Best Paper Award)**
- C104. M. Halkidi and I. Koutsopoulos, "QGraph: A quality assessment index for graph clustering", *European Conference on Information Retrieval (ECIR)*, 2019, Cologne, Germany.
- C103. M. Karaliopoulos, I. Koutsopoulos and L. Spiliopoulos, "Optimal user choice engineering in mobile crowdsensing with bounded rational users", *IEEE International Conference on Computer Communications (INFOCOM)* 2019, Paris, France.
- C102. I. Gamzu and I. Koutsopoulos, "Advertisement allocation and Mechanism design in Native Stream Advertising", *International Conference on Complex Networks and their Applications (COMPLEX)* 2018, Cambridge, UK.
- C101. S. Toumpis, G.C. Polyzos, V.A. Siris, Y. Thomas, I. Koutsopoulos, N. Fotiou, P. Getsopoulos, G. Dimaki and E. Aliaj, "A platform for wireless maritime networking experimentation", *Global Information Infrastructure and Networking Symposium (GIIS)*, 2018, Thessaloniki, Greece.
- C100. L. Chatziefleftheriou, G. Darzanos, M. Karaliopoulos and I. Koutsopoulos, "Joint user association, content caching and Recommendations in Wireless Edge Networks", *IFIP International Symposium on Computer Performance, Modeling, Measurements and Evaluation (IFIP PERFORMANCE)*, 2018, Toulouse, France.
- C99. L. Chatziefleftheriou, G. Iosifidis and I. Koutsopoulos, "Towards Resource-efficient Wireless Edge Analytics for Mobile Augmented Reality Applications", *International Conference on Wireless Communication Systems (ISWCS)* 2018, Lisbon, Portugal.
- C98. I. Koutsopoulos and M. Halkidi, "Efficient and fair item coverage in recommender systems", *IEEE International Conference on Big Data Intelligence and Computing (DataCom)* 2018 Athens, Greece.
- C97. I. Koutsopoulos, "Incentive allocation to sequential decision-making sensors in Mobile Crowdsensing", *IEEE International Conference on Pervasive Intelligence and Computing (PCom)* 2018, Athens, Greece.
- C96. M. Karaliopoulos and I. Koutsopoulos, "Mobile app user choice engineering using behavioral science models", *International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)* 2018, Kalamata, Greece.
- C95. A. Pilichos, M. Karaliopoulos and I. Koutsopoulos, "From Community Networks to Community Data: The AppLea Farming Mobile app", *European Conference on Networks and Communications (EuCNC)* 2018, Ljubljana, Slovenia.
- C94. L. Maccari, M. Karaliopoulos, I. Koutsopoulos, L. Navarro, F. Freitag and R. Io Cigno, "5G and the Internet of EveryOne: Motivation, Enables and a Research Agenda", *European Conference on Networks and Communications (EuCNC)* 2018, Ljubljana, Slovenia.

- C93. I. Koutsopoulos, "The impact of Social-network diffusion on wireless edge resource allocation", *International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM)* 2018, Chania, Greece.
- C92. P. Spentzouris, I. Koutsopoulos, K. G. Madsen, T. V. Hansen, "Advertiser bidding prediction and optimization in online advertising", *International Conference on Artificial Intelligence Applications and Innovations (AIAI)* 2018, Rhodes, Greece.
- C91. P. Spentzouris and I. Koutsopoulos, "A Stochastic optimization framework for personalized location-based mobile advertising", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2017, Paris, France.
- C90. I. Koutsopoulos, "Optimal Functional Split selection and scheduling in 5G Radio Access Networks", IEEE Workshop on 5G Architecture (5GArch), in IEEE International Conference on Communications (INFOCOM) 2017, Paris, France.
- C89. L. Chatzieftheriou, M. Karaliopoulos and I. Koutsopoulos, "Caching-aware recommendations: Nudging user behavior towards better caching performance", *IEEE International Conference on Computer Communications (INFOCOM)* 2017, Atlanta, USA.
- C88. I. Koutsopoulos and P. Spentzouris, "Native advertisement selection and allocation in social media post feeds", *ACM European Conference on Machine Learning and Principles and Practice of knowledge discovery in databases (ECML/PKDD)* 2016, Riva del Garda, Italy.
- C87. I. Koutsopoulos, "Optimal advertisement allocation in online social media feeds", *ACM International Workshop on Hot Topics in Planet-scale Mobile Computing and online social networking (HotPOST) – in ACM International Symposium on Mobile Ad-hoc Networking and Computing (Mobihoc)* 2016, Paderborn, Germany. **(Best Paper Award)**
- C86. P. Micholia, M. Karaliopoulos and I. Koutsopoulos, "Mobile crowdsensing incentives under participation uncertainty", *ACM International Workshop on Mobile Sensing, Computing, and Communication (MSCC) – in ACM International Symposium on Mobile Ad-hoc Networking and Computing (Mobihoc)* 2016, Paderorn, Germany.
- C85. M. Karaliopoulos, I. Koutsopoulos and M. Titsias, "First Learn then Earn: Optimizing Mobile Crowdsensing campaigns through data-driven user profiling", *ACM International Symposium on Mobile Ad-Hoc Networking and Computing (Mobihoc)* 2016, Paderborn, Germany.
- C84. G. Darzanos, I. Koutsopoulos and G.D. Stamoulis, "Economics models and policies for cloud federation", *IFIP Networking Conference* 2016, Vienna, Austria.
- C83. A. Destounis, G. Paschos and I. Koutsopoulos, "Streaming Big Data meets Backpressure in Distributed Network Computation", *IEEE International Conference on Computer Communications (INFOCOM)* 2016, San Francisco, CA.
- C82. K. Poularakis, G. Iosifidis, A. Argyriou, I. Koutsopoulos and L. Tassiulas, "Caching and Operator Cooperation Policies for Layered Video Content Delivery", *IEEE International Conference on Computer Communications (INFOCOM)* 2016, San Francisco, CA.
- C81. M. Karaliopoulos, L. Spiliopoulos and I. Koutsopoulos, "Factoring the human decision-making limitations in mobile crowdsensing", to appear, *Wireless On-demand Network systems and services Conference (WONS)* 2016, Cortina D' Ampezzo, Italy.
- C80. K. Katrinis, D. Syrivelis, D. Pnevmatikatos, G. Zervas, D. Theodoropoulos, I. Koutsopoulos, K. Hasharoni, D. Raho, C. Pinto, F. Espina, S. Lopez-Buedo, Q. Chen, M. Nemirovsky, D. Ruca, H. Klos, T. Berends, "Rack-scale disaggregated cloud data centers: The dReDBox project vision", *International Conference for the Design and engineering of systems-on-chip and embedded systems (DATE)* 2016, Dresden, Germany.

- C79. I. Koutsopoulos, A. Gionis and M. Halkidi, "Auctioning data for learning", *Workshop on Designing safe and secure life on the market of data*, in *ACM International Conference on Data Mining (ICDM)* 2015, Atlantic City, NJ.
- C78. G. Darzanos, I. Koutsopoulos and G.D. Stamoulis, "A model for evaluating the Economics of Cloud Federation", *IEEE International Conference on Cloud Computing (CLOUDNET)*, 2015, Niagara Falls, USA.
- C77. P. Vahabi, I. Koutsopoulos, F. Gullo and M. Halkidi, "DifRec: A social diffusion-aware recommender system", *ACM Conference on Information and Knowledge Management (CIKM)*, 2015, Melbourne, Australia.
- C76. P. Micholia, M. Karaliopoulos, I. Koutsopoulos, D. Quercia, L.M. Aiello, G. De Francisci Morales, "Getting jobs done for the sharing economy", *International Conference on Computational Social Science (ICCSS)* 2015, Helsinki, Finland.
- C75. A. Apostolaras, N. Nikaein, R. Knopp, A. M. Cipriano, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Evolved User Equipment for Collaborative Wireless Backhauling in next-generation cellular networks", *IEEE International Conference on Sensing, Communication and Networking (SECON)* 2015, Seattle, USA.
- C74. L. Gatzikis, V. Sourlas, C. Fischione, I. Koutsopoulos and G. Dan, "Clustered content replication for hierarchical content delivery networks", *IEEE International Conference on Communications (ICC)* 2015, London, UK.
- C73. M. Karaliopoulos, O. Telelis and I. Koutsopoulos, "User Recruitment for Mobile Crowdsourcing over opportunistic networks", *IEEE International Conference on Computer Communications (INFOCOM)* 2015, Hong Kong.
- C72. D. Giatsios, T. Korakis, L. Tassiulas and I. Koutsopoulos, "Reduction of collisions and Regret in time sharing schemes for opportunistic spectrum access", *International Conference on Network Games, Control and Optimization (NETGCOOP)* 2014, Trento, Italy.
- C71. L. Gkatzikis and I. Koutsopoulos, "Mobiles on Cloud Nine: Efficient Task Migration policies for cloud computing systems", *IEEE International Conference on Cloud Networking (CLOUDNET)* 2014, Luxemburg.
- C70. V. Hatzi, B. B. Cambazoglu and I. Koutsopoulos, "Web page download scheduling policies for Green web crawling", *IEEE International Conference on Software, Telecommunications and Computer Networks (SoftCom)* 2014, Split, Croatia.
- C69. A. Anastopoulou, I. Koutsopoulos and G.D. Stamoulis, "Efficient Incentive-driven Consumption Curtailment Mechanisms in Nega-Watt Markets", *IEEE International Conference on Communications, Control and Computing Technologies for Smart Grids (SmartGridComm)* 2014, Venice, Italy.
- C68. T.G. Papaioannou, V. Hatzi and I. Koutsopoulos, "Optimal Design of Serious Games for Demand Side Management", *IEEE International Conference on Communication, Control and Computing Technologies for Smart Grids (SmartGridComm)* 2014, Venice, Italy.
- C67. L. Gkatzikis, G. Iosifidis, I. Koutsopoulos and L. Tassiulas, "Collaborative Placement and sharing of Storage Resources in the Smart Grid", *IEEE International Conference on Communication, Control and Computing Technologies for Smart Grids (SmartGridComm)* 2014, Venice, Italy.
- C66. S. Keranidis, V. Passas, K. Chounos, W. Liu, T. Korakis, I. Koutsopoulos, I. Moerman and L. Tassiulas, "Online assessment of sensing performance in experimental spectrum sensing platforms", *ACM Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (WINTeCH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2014, Maui, HI.
- C65. S. Keranidis, G. Kasdaridis, N. Makris, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Experimental Evaluation and Comparative study of Energy Efficiency of the evolving IEEE 802.11 standards", *ACM International Conference on Future and Sustainable Energy Systems (e-Energy)* 2014, Cambridge, UK.

- C64. I. Koutsopoulos, E. Noutsi and G. Iosifidis, "Dijkstra goes Social: Social-Graph-assisted routing in Next Generation Wireless Networks", *European Wireless (EW)* 2014, Barcelona, Spain.
- C63. V. Miliotis, I. Koutsopoulos, L. Alonso and C. Verikoukis, "Low-overhead Heuristic Algorithms for Spectrum Sensing in Cognitive Radio Networks", *European Wireless (EW)* 2014, Barcelona, Spain.
- C62. E. Matskani, N. Chatzidiamantis, L. Georgiadis, I. Koutsopoulos and L. Tassiulas, "The mutual benefits of Primary-Secondary user cooperation in Wireless cognitive radio networks", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2014, Hammamet, Tunisia.
- C61. D. Syrivelis, P. Giaccone, I. Koutsopoulos, M. Pretti and L. Tassiulas, "On Emulating Hardware / Software co-designed control algorithms for packet switches", *ACM Workshop on Emulation Tools, Methodologies and Techniques (EmuTools)* 2014, Lisbon, Portugal.
- C60. M. Hedef, A. Apostolaras, J. O' Reilly, A. Murad, B. Moulouche, I. Koutsopoulos, T. Korakis and L. Tassiulas, "Energy-aware buffer-aided cooperative relay selection", *IEEE Wireless Communications and Networking Conference (WCNC)* 2014, Istanbul, Turkey.
- C59. S. Keranidis, G. Kasdaridis, V. Passas, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Online Energy Consumption Monitoring of wireless testbed infrastructure through the NITOS EMF framework", *ACM Workshop on Wireless Network Testbeds, Experimental evaluation and Characterization (WINTeCH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2013, Miami, FL **(Best Paper Award)**
- C58. A. Apostolaras, K. Choumas, I. Syrigos, I. Koutsopoulos, T. Korakis, A. Argyriou and L. Tassiulas, "On the implementation of relay selection strategies for a cooperative diamond network", *IEEE Personal Indoor Mobile Radio Conference (PIMRC)* 2013, London, UK.
- C57. I. Koutsopoulos, G. Iosifidis and N. Barbieri, "Auction theory meets collective intelligence: Towards designing next-generation Community Question Answering systems", *Internet Science Conference* 2013, Brussels, Belgium.
- C56. D. Hatzopoulos, I. Koutsopoulos, G. Koutitas, W. van Hedenghem, "Dynamic Virtual Machine Allocation in Cloud Server Facility Systems with Renewable Energy Sources", *IEEE International Conference on Communications (ICC)* 2013, Budapest, Hungary.
- C55. M. Hedef, A. Apostolaras, A. Mourad, J. Oreilly, I. Koutsopoulos, T. Korakis and L. Tassiulas, "Energy Efficiency Performance Evaluation of Back-Pressure Driven Cooperative Relay Selection for WiMAX Systems", *ACM Workshop on Emulation Tools, Methodologies and Techniques (EmuTools)* 2013, Cannes, France.
- C54. I. Koutsopoulos, "Optimal Incentive-driven design of participatory sensing systems", *IEEE International Conference on Computer Communications (INFOCOM)* 2013, Torino, Italy.
- C53. S. Keranidis, W. Liu, M. Mehari, P. Becue, S. Bouckaert, I. Moerman, T. Korakis, I. Koutsopoulos and L. Tassiulas, "CONCRETE: A benchmarking tool to CONTROL and Classify REpeatable Testbed Experiments", *FIRE Engineering Workshop* 2012, Ghent, Belgium.
- C52. O. Korcak, G. Iosifidis, T. Alpcan and I. Koutsopoulos, "Competition and Regulation in a Wireless Operators Market: An evolutionary game perspective", *International Conference on Network Games, Control and Optimization (NETGCOOP)* 2012, Avignon, France.
- C51. G. Iosifidis, A. Chorppath, T. Alpcan and I. Koutsopoulos, "Incentive Mechanisms of Hierarchical Spectrum Markets", *International Conference on Network Games, Control and Optimization (NETGCOOP)* 2012, Avignon, France.
- C50. D. Giatsios, T. Korakis and I. Koutsopoulos, "Dishonest reporting in Queue-based Cross-layer network optimization", *IEEE International Workshop on QoS (IWQoS)* 2012, Coimbra, Portugal.

- C49. K. Choumas, T. Korakis, I. Koutsopoulos, and L. Tassiulas, "Implementation and End-to-end Throughput Evaluation of an IEEE 802.11 compliant version of the Enhanced Backpressure Algorithm", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012, Thessaloniki, Greece.
- C48. S. Keranidis, D. Giatsios, T. Korakis, I. Koutsopoulos, L. Tassiulas, T. Rakotoarivelo, T. Parmentelat, "Experimentation in Heterogeneous European Test-beds through the OneLab Facility: The case of PlanetLab federation with the wireless NITOS test-bed", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012, Thessaloniki, Greece.
- C47. L. Gatzikis, T. Tryfonopoulos, and I. Koutsopoulos, "An Efficient Probing Mechanism for Next Generation Mobile Broadband Systems", *IEEE Wireless Communications and Networking Conference (WCNC)* 2012, Paris.
- C46. L. Gatzikis, G.S. Paschos and I. Koutsopoulos, "Medium Access Games: The impact of energy constraints", *International Conference on Network Games, Control and Optimization (NETGCOOP)* 2011, Paris.
- C45. I. Koutsopoulos, V. Hatzi and L. Tassiulas, "Optimal Energy Storage Control Policies for the Smart Power Grid", *IEEE International Conference on Smart Grid Communications (SmartGridComm)* 2011, Brussels, Belgium.
- C44. I. Kasdaridis, S. Keranidis, A. Fiamengkos, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Novel metrics and Experimentation insights for Dynamic Frequency Selection in wireless LANs", *ACM Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTECH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2011, Las Vegas, NV.
- C43. M. Halkidi and I. Koutsopoulos, "A game theoretic framework for data privacy preservation in Recommender systems", *European Conference on Machine Learning and Principles and Practice of knowledge discovery in databases (ECML/PKDD)* 2011, Athens, Greece.
- C42. M. Niedermayer, N. Ali, H. de Meer, H. Hlavacs, T. Treutner, L. Lefevre, J.-P. Gelas and I. Koutsopoulos, "Energy monitoring and its impact on individual user privacy", *Future Internet Cluster Workshop* 2011, Budapest.
- C41. I. Koutsopoulos and L. Tassiulas, "Control and Optimization meet the Smart Power Grid: Scheduling of power demands for optimal energy management", *ACM International Conference on Energy-Efficient Computing and Networking (E-Energy)*, 2011, New York, NY.
- C40. I. Koutsopoulos, "Competition and Cooperation in Wireless Access Misbehavior", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2011, Princeton, NJ.
- C39. S. Keranidis, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Contention and Traffic Load-aware Association in IEEE 802.11 WLANs: Algorithms and Implementation", *International Workshop on Wireless Network Measurements (WinMEE)*, in *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2011, Princeton, NJ.
- C38. M. Halkidi and I. Koutsopoulos, "Online Clustering of Distributed Streaming Data using Belief Propagation Techniques", *IEEE International Conference on Mobile Data Management (MDM)* 2011, Lulea, Sweden.
- C37. G. Kyriakou, D. Stavropoulos, I. Koutsopoulos, T. Korakis and L. Tassiulas, "A framework and experimental study for discrimination of collision and channel errors in wireless LANs", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2011, Shanghai, China.



- C36. G. Iosifidis, I. Koutsopoulos and G. Smaragdakis, "The impact of storage capacity on end-to-end delay in dynamic networks", *IEEE International Conference on Computer Communications (INFOCOM)* 2011, Shanghai, China.
- C35. I. Koutsopoulos, S. Stanczak and A. Feistel, "Transmit rate control for energy efficient estimation in wireless sensor networks", *IEEE Global Telecommunications Conference (GLOBECOM)* 2010, Miami, FL.
- C34. I. Koutsopoulos and G. Iosifidis, "Auction mechanisms for Network Resource allocation", *Workshop on Resource Allocation in Wireless Networks (RAWNET), in International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2010, Avignon, France. (invited paper)
- C33. I. Koutsopoulos and M. Halkidi, "Measurement aggregation and routing techniques for Energy-efficient Estimation in Wireless Sensor Networks", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2010, Avignon, France.
- C32. L. Gatzikis and I. Koutsopoulos, "Low complexity algorithms for Relay Selection and power control in interference-limited environments", *International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt)* 2010. Avignon, France.
- C31. I. Koutsopoulos and M. Halkidi, "Lifetime maximization in wireless sensor networks with an Estimation mission", *IEEE Global Telecommunications Conference (GLOBECOM)* 2009, Hawaii.
- C30. K. Pelechrinis, I. Koutsopoulos, I. Broustis, and S. Krishnamurthy, "Lightweight Jammer Localization in wireless networks: System design and implementation", *IEEE Global Telecommunications Conference (GLOBECOM)* 2009, Hawaii.
- C29. C. Papathanasiou, I. Koutsopoulos, and L. Tassiulas, "Low complexity beam-forming techniques for IEEE 802.11n WLANs" *IEEE Vehicular Technology Conference (VTC) 2009-Fall*, Anchorage, Alaska.
- C28. I. Koutsopoulos, L. Tassiulas and L. Gkatzikis, "Client and server games in peer-to-peer networks", *IEEE International Workshop on QoS (IWQoS)* 2009, Charleston, SC.
- C27. C. Papathanasiou, I. Koutsopoulos and L. Tassiulas, "Interference mitigation in co-existing 802.11n WLANs", *Wireless Telecommunications Symposium* 2009, Prague Czech Republic.
- C26. R. Oliveira and I. Koutsopoulos, "Queue and channel state awareness for maximum throughput Access control in CSMA/CA based wireless LANs", *IEEE Wireless Communications and Networking Conference (WCNC)* 2009, Budapest, Hungary.
- C25. I. Koutsopoulos and G. Iosifidis, "Distributed resource allocation algorithms for peer-to-peer networks", *ACM International Conference on Performance Evaluation and Tools (VALUETOOLS)* 2008, Athens, Greece.
- C24. I. Koutsopoulos and G. Iosifidis, "Reputation-assisted utility maximization algorithms for peer-to-peer networks", *IEEE International Workshop on QoS (IWQoS)* 2008, Twente, Netherlands.
- C23. R. Oliveira, L. Bernardo, P. Pinto and I. Koutsopoulos, "On service time estimation in 802.11 WLANs with heterogeneous sources", *IEEE International Symposium on Wireless Communication Systems (ISWCS)* 2008, Reykjavik, Iceland.
- C22. M. Li, I. Koutsopoulos and R. Poovendran, "Optimal jamming attacks and defense strategies in wireless sensor networks", *IEEE International Conference on Computer Communications (INFOCOM)* 2007, Anchorage, Alaska.
- C21. C. Verikoukis, L. Alonso and I. Koutsopoulos, "Performance evaluation of directional antenna-assisted MAC protocols in the presence of mobility", *IST Mobile Summit* 2006, Mykonos, Greece.
- C20. S. Radosavac, J.S. Baras and I. Koutsopoulos, "A framework for MAC layer misbehavior detection in wireless networks", *ACM Workshop on Wireless Security (WiSe), in ACM International Conference on Mobile Computing and Networking (Mobicom)* 2005, Cologne, Germany.

- C19. I. Koutsopoulos, S. Toumpis and L. Tassiulas, "On the relation between source and channel coding and sensor network deployment", *International Workshop on wireless ad-hoc networks (IWWAN)* 2005, London.
- C18. A. Penttinen, I. Koutsopoulos and L. Tassiulas, "Low-complexity distributed fair scheduling for wireless multi-hop networks", *Workshop on Resource Allocation in Wireless Networks (RAWNET), in International Symposium on Modelling and Optimization in Mobile, Ad hoc and wireless networks (WiOpt) 2005*, Riva del Garda, Italy.
- C17. U.C. Kozat, I. Koutsopoulos and L. Tassiulas, "A framework for cross-layer design of Energy-Efficient Communication with QoS provisioning in Multi-hop wireless networks", *IEEE International Conference on Computer Communications (INFOCOM)* 2004, Hong Kong.
- C16. I. Koutsopoulos and L. Tassiulas, "Adaptive channel allocation in OFDM/SDMA wireless LANs with limited transceiver resources", *IFIP-TC6 Networking Conference 2004, Athens, Greece and Lecture Notes in Computer Science*, vol.3042, pp.1384-1389, 2004.
- C15. I. Koutsopoulos, T. Ren and L. Tassiulas, "The impact of Space Division Multiplexing on resource allocation: A unified approach", *IEEE International Conference on Computer Communications (INFOCOM)* 2003, San Francisco.
- C14. I. Koutsopoulos and L. Tassiulas, "Adaptive resource allocation in SDMA-based wireless broadband networks with OFDM signaling", *IEEE International Conference on Computer Communications (INFOCOM)* 2002, New York.
- C13. U.C. Kozat, I. Koutsopoulos and L. Tassiulas, "Dynamic code assignment and spreading gain adaptation for synchronous CDMA wireless networks", *IEEE International Symposium on Spread Spectrum Techniques and Applications (ISSSTA)* 2002, Prague, Czech Republic.
- C12. I. Koutsopoulos, T. Ren and L. Tassiulas, "Efficient media access protocols for wireless LANs with smart antennas", *IEEE Wireless Communications and Networking Conference (WCNC)* 2003, New Orleans.
- C11. T. Ren, I. Koutsopoulos and L. Tassiulas, "QoS provisioning for real-time traffic in wireless packet networks", *IEEE Global Telecommunications Conference (GLOBECOM)* 2002, Taipei, Taiwan.
- C10. I. Koutsopoulos and L. Tassiulas, "Link adaptation policies for wireless broadband networks", *IEEE Global Telecommunications Conference (GLOBECOM)* 2001, San Antonio, Texas.
- C9. I. Koutsopoulos and L. Tassiulas, "Channel-state adaptive techniques for throughput enhancement in wireless broadband networks", *IEEE International Conference on Computer Communications (INFOCOM)* 2001, Anchorage, Alaska.
- C8. I. Koutsopoulos and L. Tassiulas, "Carrier assignment algorithms in wireless broadband networks with channel adaptation", *IEEE International Communications Conference (ICC)* 2001, Helsinki, Finland.
- C7. I. Koutsopoulos and L. Tassiulas, "Joint base station and channel allocation in mobile cellular networks", *IEEE International Communications Conference (ICC)* 2000, New Orleans, LA.
- C6. I. Koutsopoulos, A. Savvides, D. Connors and S.K. Dao, "Intra-team multi-hop broadcasting (ITMB): a MAC layer protocol for efficient control signaling in wireless ad-hoc networks", *IEEE International Communications Conference (ICC)* 2000, New Orleans, LA.
- C5. I. Koutsopoulos and P. Constantinou, "Joint channel estimation and satellite antenna power control in mobile satellite networks using ray tracing", *IEEE Vehicular Technology Conference (VTC) 2000 Spring*, Tokyo, Japan.

- C4. I. Koutsopoulos and L. Tassiulas, "A synchronization-based scheme for simultaneous full- and half-duplex communication in GSM-based MEO mobile satellite networks", *IEEE Global Telecommunications Conference (GLOBECOM)* 1999, Rio de Janeiro, Brazil.
- C3. I. Koutsopoulos and L. Tassiulas, "Reliable handover prediction and resource allocation in MEO mobile satellite networks", *IEEE/IMACS Circuits, Systems, Communications Conference* 1999, Athens, Greece.
- C2. I. Koutsopoulos and L. Tassiulas, "A unified framework for handover prediction and resource allocation in non-geostationary mobile satellite networks", *IEEE Vehicular Technology Conference (VTC)* 1999 Fall, Amsterdam, Netherlands.
- C1. T. Sofos, I. Koutsopoulos and P. Constantinou, "A deterministic ray-tracing based model for land mobile satellite channel in urban environment", *IEEE Vehicular Technology Conference (VTC)* 1998, Vancouver, Canada.

#### 4.7.1. Conference papers under review

- SC1. T. Tsouparopoulos, F. Charalambakos and I. Koutsopoulos, "On Federated Learning of Explainable models with Multi-objective optimization", to be submitted.

#### 4.8. Demos, extended abstracts, and posters

- D33. P. Archontovassilis and I. Koutsopoulos, "Quantum physics for robotic surgery: Remote surgery comes closer?", *Panhellenic Conference on Laparoscopic and Robotic Surgery*, 2025, Athens, Greece.
- D32. P. Archontovassilis, P. Filos and I. Koutsopoulos, "Research challenges in quantum entanglement distribution for enabling quantum applications", *Summit for Gender Equality in Computing (GEC)* 2025, Piraeus, Greece.
- D31. Y. Liang, P. Bajardi, G. Bologna, F. Bonchi, G. Cortellessa, A. Dekker, F. Fracasso, M. Joore, N. Paragios, T. Rattay, S. Rivera, C. Roumen, J. van Soest, A. Traverso, K. Verhoeven, I. Koutsopoulos, C. J Talbot, PRE-ACT: Prediction of Radiotherapy side Effects using explainable AI for patient Communication and Treatment modification, *Journal of Cancer Policy*, Dec. 2024.
- D30. K. Verhoeven, T. Brion, W.R. Green, M. Balia, A. Webb, T. Rattay, Y. Liang, L.G. Assia, I. Hafsa, S. Romdhani, R. Iandolo, A. Bombezini-Domino, K. Teo, R. McBeth, I. Koutsopoulos, C. Talbot, N. Paragios, S. Rivera, "Multi-Institutional Qualitative Evaluation of Automatic and Manual Segmentations of Organs at Risk on PRE ACT Breast Cancer Cohorts", *International Journal of Radiation Oncology, Biology, Physics*, Oct. 2024.
- D29. Y. Liang, J. Rainbird, G. Cortellessa, M. Balia, G. Bologna, I. Koutsopoulos, A. Pannison, A. Perotti, B. Ramaekers, T. Rattay, S. Rivera, A. Romita, C. Roumen, C. Talbot, K. Verhoeven, M. Bergeaud, F. Fracasso, "Physicians' Views on Explainable Artificial Intelligence Models to Predict the Risk of Toxicity Following Breast Radiotherapy", *International Journal of Radiation Oncology, Biology, Physics*, Oct. 2024.
- D28. T. Rattay, G. Bologna, A. Bombezini-Domino, G. Cortellessa, A. Dekker, F. Fracasso, M. Joore, A. Pannison, A. Perotti, B.L.T. Ramaekers, S. Rivera, A. Romita, C. Roumen, J. van Soest, H. Stobart, F. Tohidinezhad, A. Traverso, K. Verhoeven, A.J. Webb, I. Koutsopoulos, C.J. Talbot, "Development of an ai prediction model for arm lymphoedema following breast cancer surgery and radiotherapy", *European Journal of Surgical Oncology*, May 2024.
- D27. C. Roumen, J. Rainbird, K. Verhoeven, G. Bologna, A. Bombezini-Domino, T. Rattay, J. van Soest, A. Dekker, M. Joore, A. Pannison, A. Perotti, B.L.T. Ramaekers, S. Rivera, A. Romita, A. Traverso, A.J. Webb, I. Koutsopoulos, C.J. Talbot, G. Cortellessa, F. Fracasso, "Breast cancer patients' communication needs and wishes for an explainable Artificial Intelligence prediction model for lymphedema", *European Journal of Cancer*, March 2024.
- D26. T. Rattay, P. Bajardi, G. Bologna, F. Bonchi, G. Cortellessa, A. Dekker, F. Fracasso, M. Joore, N. Paragios, S. Rivera, C. Roumen, J. van Soest, A. Traverso, K. Verhoeven, I. Koutsopoulos, C. Talbot, "PREACT: Prediction



- of radiotherapy side effects using explainable AI for patient communication and treatment modification", *The Breast*, Apr. 2023.
- D25. D. Kafetzis and I. Koutsopoulos, "An experimental platform for AI model partitioning on resource-constrained devices", *ACM International Symposium on Theory, Algorithmic Foundations, and Protocol Design for Mobile Networks and Mobile Computing (MobiHoc)* 2024, Athens, Greece.
- D24.T. Tsouparopoulos and I. Koutsopoulos, "Federated Learning for 6G: Challenges and opportunities", *6G Wireless Foundations Forum*, Sophia-Antipolis, 2023.
- D23. I. Koutsopoulos, "PRE-ACT: Prediction of Radiotherapy Side Effects using Explainable AI for patient Communication and Treatment modification", *Conference on Leading and Management in the Digital Era (LMDE)* 2023, Athens and Syros, Greece.
- D22. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Personalized Federated Learning with Exact Gradient Descent updates", *Summit for Gender Equality in Computing (GEC)* 2023, Athens, Greece.
- D21. S. Nikoloutsopoulos, I. Koutsopoulos and M. Titsias, "Kullback Leibler Reservoir Sampling for Fairness in Continual Learning", *Summit for Gender Equality in Computing (GEC)* 2023, Athens, Greece.
- D20. A. Chitos, M. Halkidi, M. Karaliopoulos and I. Koutsopoulos, "NUDGE: Nudging Consumers towards Energy Efficiency through Behavioral Science", *Summit for Gender Equality in Computing (GEC)* 2023, Athens, Greece.
- D19. O. Diamantopoulos, S. Chadoulos, I. Koutsopoulos, G.C. Polyzos and N. Ipiotis, "Building energy efficiency recommendations with Reinforcement Learning:", *Summit for Gender Equality in Computing (GEC)* 2023, Athens, Greece.
- D18. T. Tsouparopoulos and I. Koutsopoulos, "Federated Learning for 6G: Challenges and opportunities" *Summit for Gender Equality in Computing (GEC)* 2023, Athens, Greece.
- D17. C. Talbot, P Bajardi, G. Bologna<sup>3</sup>, F. Bonchi, G. Cortellessa, D. De Ruysscher<sup>5</sup>, F. Fracasso, M. Gooding, M. Joore, T. Rattay, S. Rivera, J. Sage, J. van Soest, K. Verhoeven, I. Koutsopoulos, "PRE-ACT: Prediction of Radiotherapy side Effects using explainable AI for patient Communication and Treatment modification", *Association for Radiation Research (ARR) Annual meeting*, 2022.
- D16. F. Freitag, P. Vilchez, L. Wei, C.-H. Liu, M. Selimi, and I. Koutsopoulos, "An Experimental environment based on Mini-PCs for Federated Learning Research", *IEEE Consumer Communications and Networking Conference (CCNC)* 2022.
- D15. E. Aliaj, G. Dimaki, P. Getsopoulos, Y. Thomas, N. Fotiou, S. Tournis, V. Siris, I. Koutsopoulos and G.C. Polyzos, "Wireless Maritime Networking Experiments with Dedalus", *ACM Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTECH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2018.
- D14. A. Apostolaras, N. Nikaein, R. Knopp, A.M. Cipriano, T. Korakis, I. Koutsopoulos and L. Tassiulas, "A demonstration of evolved User Equipment for collaborative wireless backhauling in next generation cellular networks", *IEEE International Conference on Sensing, Communication and Networking (SECON)* 2015.
- D13. S. Keranidis, K. Chounos, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Enabling AGILE Spectrum Adaptation in commercial 802.11 WLAN deployments", *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2014.
- D12. S. Keranidis, G. Kasdaridis, V. Passas, G. Igoumenos, T. Korakis, I. Koutsopoulos and L. Tassiulas, "NITOS Mobile Monitoring solution: Realistic Energy consumption profiling of mobile devices", *ACM International Conference on Energy-Efficient Computing and Networking (E-Energy)* 2014.
- D11. S. Keranidis, G. Kasdaridis, V. Passas, G. Igoumenos, T. Korakis, I. Koutsopoulos and L. Tassiulas, "NITOS Mobile Monitoring Solution: Realistic Energy Consumption Profiling of Mobile Devices", *ACM Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTECH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2014.

- D10. V. Passas, K. Chounos, S. Keranidis, W. Liu, L. Hollevoet, T. Korakis, I. Koutsopoulos, I. Moerman and L. Tassiulas, "Online evaluation of sensing characteristics for radio platforms in the CREW federated testbed, *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2013.
- D9. S. Keranidis, G. Kazdaridis, V. Passas, T. Korakis, I. Koutsopoulos and L. Tassiulas, "Online energy consumption monitoring of wireless testbed infrastructure through the NITOS EMF framework", *ACM Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTECH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2013.
- D8. A. Apostolaras, I. Syrigos, I. Kazdaridis, K. Choumas, T. Korakis, I. Koutsopoulos, A. Argyriou, and L. Tassiulas, "A Demonstration of a Relaying Selection Scheme for Maximizing A Diamond Network's Throughput", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012.
- D7. V. Maglogiannis, D. Giatsios, G. Kazdaridis, T. Korakis, I. Koutsopoulos, and L. Tassiulas, "Integrating sensor measurements through CM cards as an OMF service ", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012.
- D6. K. Choumas, T. Korakis, I. Koutsopoulos, and L. Tassiulas., "A Demonstation of Video over an IEEE 802.11 compliant version of the Enhanced-Backpressure algorithm", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012.
- D5. V. Passas, S. Keranidis, T. Korakis, I. Koutsopoulos, and L. Tassiulas. "An Experimental Framework for Channel Sensing through USRP/GNU Radios", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012.
- D4. I. Kazdaridis, S. Keranidis, H. Niavis, T. Korakis, I. Koutsopoulos, and L. Tassiulas, "An Integrated Chassis Manager Card Platform featuring multiple sensor modules", *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012 (**Best Demo award**).
- D3. N. Makris, S. Keranidis, D. Giatsios, T. Korakis, I. Koutsopoulos, L. Tassiulas, T. Rakotoarivelo and T. Parmentelat, "Cross-test-bed experimentation using the PlanetLab-NITOS federation, *International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)* 2012.
- D2. G. Kasdaridis, S. Keranidis, A. Fiamengkos, T. Korakis, I. Koutsopoulos, L. Tassiulas, "Dynamic Frequency selection through collaborative reporting in WLANs", in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2011.
- D1. S. Keranidis, I. Koutsopoulos, T. Korakis, L. Tassiulas, "An experimental framework for data gathering and analysis in wireless sensor networks", *ACM Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTECH)*, in *ACM International Conference on Mobile Computing and Networking (Mobicom)* 2011.

#### 4.9. Patents

- P1. D. Connors and I. Koutsopoulos, "Apparatus and method for intra-team multi-hop broadcasting for efficient control signaling in wireless ad-hoc networks, *US Patent No.7,542,426*, United States Patent and Trademark Office, 2009.

## 5. Funding and research projects

### 5.1. Overview of Funding activity

Have attracted funding of €7.852M from the following sources:

- European Commission: €5.848M
  - Horizon Europe project POSEIDON (€396K)
  - Horizon Europe Target-X project Open Call - IMPACT-xG project (€60K)
  - Horizon Europe project PRUDENT (€129K)
  - Horizon Europe project PRE-ACT (€637K)
  - H2020 project NUDGE (€185K)
  - EDIDP project SMOTANET (€438K)
  - H2020 project InterConnect (€327K)
  - H2020 ESMERA project Open Call - EREVOS project (€20K)
  - H2020 project NetCommons (€262K)
  - H2020 project DREDBOX (€780K)
  - FP7 EU projects STAMINA (€560K), CONECT (€490K), OPNEX (€430K), N-CRAVE (€560K).
  - FP7 Marie Curie Project AGILENET (€58K)
  - FP6 EU project NETREFOUND (€436K)
  - FP6 Marie Curie Project SAINT-W (€80K)
- National Funds: €1.784M
  - Hellenic Foundation for Research and Innovation (HFRI) MAITRE (€255K)
  - CHIST-ERA project LeadingEdge (€197K)
  - Single-investigator ERC-runner-up project RECITAL (€690K)
  - Hellenic Foundation for Research and Innovation (HFRI) LEMONADE project (€183K)
  - National program "Thales" (€200K)
  - National Program "Postdoc" (€150K)
  - Ministry of education NSRF Fund for Reinforcing Young Researchers (€57K)
  - General Secretariat for Research and Technology, GR (€15K)
  - General Secretariat for Research and Technology, GR: National matching funds for European projects (~€4K)
  - Greek State Scholarships Foundation (IKY) (€10K)
  - AUEB internal funding: Programs "Original scientific publications", "Reinforcement of research", "Excellence in Publications" (€23.5K)
- Private sector: €220K
  - Samsung GRO Program (€200K)
  - Intelligent Banker Inc., Odense, Denmark (€20K)

### 5.2. Funding record and projects

European Commission Projects where I. Koutsopoulos is or was PI, co-PI or Technical Coordinator

- *"Post-quantum secure digital identities for European solutions"* (POSEIDON), budget €6M, AUEB budget €396K; Function: PI for AUEB, 2025-2028.
- *"Media quality monitoring in xG networks"* (IMPACT-xG), Open call from Target-X project, budget €120K, EU funding €120K; AUEB funding €60K; Function: PI for AUEB, 2023-2024.
- *"Promoting Green Nudging for Sustainable Agriculture and Forestry"*, budget € 3M, AUEB budget €129.25K; Function: PI for AUEB, 2024-2028.
- *"Prediction of Radiotherapy side Effects using explainable AI for patient Communication and treatment modification"* (PRE-ACT), budget €7.4M, EU funding €4.6M; AUEB EU funding €637K; Function: Project Coordinator and PI for AUEB, 2022-2027.
- *"Development of Software Defined mobile ad Hoc tactical network devices and testbed"* (SMOTANET), EDIDP Defense Program, budget €3.9M, EU funding €3.9M; AUEB EU funding €438K; Function: PI for AUEB, 2020-2023.
- *"Nudging consumers towards energy efficiency with behavioral science"* (NUDGE), Energy H2020 Research and Innovation project, budget €2M, EU funding €2M; AUEB EU funding €185K; Function: PI for AUEB, 2020-2023.
- *"Aerial survey of railways with drones for vegetation management"* (EREVOS), Open call from European SMEs Robotics Applications (ESMERA) project, budget €75K, EU funding €75K; AUEB funding €20K; Function: PI for AUEB, 2019-2020.
- *"Interoperable solutions connecting smart homes, buildings, and grids"* (InterConnect), Energy H2020 Innovation Action project, budget €30M, EU funding €30M; AUEB EU funding €327.8K; Function: co-PI for AUEB (with G. Polyzos), 2019-2023.
- *"Disaggregated Recursive Data Centre in-a-Box"* (DREDBox), ICT H2020 Research and Innovation Action project, budget €6.45M, EU funding €6.45M; UTH EU funding €780K; Function: co-PI for UTH (with T. Korakis), 2016-2018.
- *"Network infrastructure as commons"* (netcommons), ICT H2020 Research and Innovation Action project, budget €2.4M, EU funding €1.93M; AUEB EU funding €262K; Function: PI for AUEB, 2016-2018.
- *"Cooperative Networking for High Capacity Transport Architectures"* (CONNECT) ICT FP7 STREP, budget €2.8M, EU funding €2M; CERTH budget €605K, EU funding €490K; Function: Proposal author, project Technical Coordinator, co-PI (with L. Tassiulas), 2010-2013.
- *"Statistical Mechanics Inspired Methods for Green Autonomous Networking"* (STAMINA) ICT FP7 STREP, budget €2.6M, EU funding €2M; CERTH budget €659K, EU funding €560K; Function: proposal author, project Technical Coordinator, co-PI (with L. Tassiulas), 2011-2014.
- *"Adaptive, heterogeneous, incentive-compatible, localized and secure networking (AGILENET)"*, Marie Curie IRSES project, budget €190K; UTH budget / EU funding €58K; Function: PI for UTH, 2011-2013.
- *"OPTimization driven multi-hop Network design and EXperimentation"* (OPNEX), ICT FP7 STREP 224218, budget €2.2M, EU funding €1.4M; CERTH budget €539K, EU funding €430K; Function: Proposal writer, project Technical Coordinator, co-PI (with L. Tassiulas), 2008-2011.
- *"Networking Research Foundations and Trends"* (NETREFOUND), IST FP6 STREP 034413 budget €2.5M EU funding €1.7M; CERTH budget €761K, EU funding €436K; Function: proposal writer, project Technical Coordinator, project co-PI (with L. Tassiulas), 2006-2009.
- *"SAINT-W: Secure Advanced Integrated Layer Design of Wireless Networks"*, Marie Curie International Re-Integration Grant (IRG), EU funding €80K, 9/2005-9/2007.

National Projects where I. Koutsopoulos is or was PI, co-PI or technical coordinator

- “MAITRE: Towards advancing the mathematical and computational foundations for Digital Twins of Wireless Ad-hoc networks”, Hellenic Foundation for Research and Innovation (HFRI) grant for Faculty members, €255K; Function: co-PI (with S. Toumpis), 2025-2028.
- “Holistic and foundational resource allocation framework for optimized and impactful edge computing services” (LeadingEdge), CHIST-ERA 2018 call, 2020-2023, budget €1.46M, EU funding €1.02M; AUEB funding €197.25K; Function: PI for AUEB, 2020-2023.
- “LEMONADE: Wireless mobile delay-tolerant networks: Design and experimentation”, Hellenic Foundation for Research and Innovation (HFRI) grant for Faculty members, €183K; Function: co-PI (with S. Toumpis), 2020-2024.
- “Optimal content caching techniques for mobile communication networks”, Ministry of Education and Lifelong Learning: grant for Reinforcement of Young Researchers, €57K; Function: PI, 2017-2019.
- “RECITAL: Resource Management for Self-coordinated Autonomic Wireless Networks”, Single-Investigator European Research Council (ERC) runner-up award (co-funded by Greece and the European Union (European Social Fund) through the Operational Program "Education and lifelong learning - NCRF 2007-2013), €690K, 2012-2015. The ERC proposal progressed to the interview stage, it was not funded by ERC but was co-funded by EU and National Funds. Function: PI, Technical Coordinator.
- “Optimal Control of Self-organized Wireless Networks” (CROWN), Ministry of National Education Program "Thales"; funding €600K; UTH €200K; Function: proposal editor, project co-PI for UTH (with L. Tassiulas), 2011-2014.
- “Wireless Network Coding for practical systems (WiNC), Ministry of National Education program "Postdoc", €150K; Function: PI, 2012-2015.
- “Optimal management of storage in communication networks and cloud systems”, Greek Government Scholarship Foundation (IKY) for bi-lateral collaboration with Deutsche Telekom Labs, Germany, €10K; Function: PI, 2012-2013.
- “Design Of Algorithms For Ensuring Timely and Secure Data Delivery In Wireless Networks”, General Secretariat for Research and Technology, GR (GSRT), Program for Scientific and Technological Cooperation Greece - Turkey, €15K; Function: PI, 2006-2008.

Internal university grants where I. Koutsopoulos is PI or co-PI

- “Excellence in Scientific Publications”, Research support grant, Athens University of Economics and Business €3K; Function: PI, 2024-2025.
- “Optimization of computation and data collection in mobile environments”, Research support grant, Athens University of Economics and Business €10K; Function: PI, 2015-2017.

Private Projects where I. Koutsopoulos is or was PI, co-PI or technical coordinator

- “Machine-learning-driven dynamic bidding optimization for maximum revenue”, Intelligent Banker bilateral project 2017-2018, €20K. Function: PI.
- “NETSTAT: Network inference and optimization with statistical physics methods”, Samsung Global Research Outreach (GRO) Innovations program award, 2012-2013, €200K. Function: co-PI (with L. Tassiulas).

European Projects where I. Koutsopoulos participates or has participated

- *"Energy optimization of building IoT infrastructures in a stratified way" (e-PIOTIS)*, PLATOON project Open call; 2023-2024.
- *"Selective IoT data sharing" (SelectShare)*, NGI Data Portability and Services Incubator (DAPSI) Open Call, 2022-2023.
- *"Dynamically reconfigurable optical/wireless fronthaul/backhaul with cognitive control plane for small cells and cloud-RANs" (5G-Xhaul)*, H2020 5G-PPP project, Sept. 2015-Aug. 2018.
- *"European Internet Science" (EINS)* ICT FP7 Network of Excellence (NoE), 2011-2014. Economics inspired network resource allocation, information privacy.
- *"Forensic Laboratory for in-situ evidence analysis in a post blast scenario (FORLAB)"*, SEC FP7 STREP project.
- *"Towards Real Energy-efficient Network Design" (TREND)*, ICT FP7 NoE, 2010-2013. Energy-efficiency in networking and smart grid.
- *"Control for Coordination of Distributed Systems (Con4Coord)"*- ICT FP7 STREP, (2008-2011). Distributed sensor network control algorithms for optimal estimation.
- *"Network Coding for Robust Architectures in Volatile Environments" (N-CRAVE)*, ICT FP7 STEP 215252 budget 3.57M, EU funding: 2.36M; CERTH budget 700K, EU funding 560K; proposal author, 2007-2010.
- *"Network of Excellence in Wireless Communications ++ (NEWCOM++)"* – ICT FP7 NoE, 2008 – 2011. Coordination of subproject on Network Theory.
- *"An all-wireless Mobile Network Architecture (WIP)"*, IST FP6 STREP Project, 2006-2009. Design and implementation of resource allocation algorithms for wireless mesh networks.
- *Network of Excellence in Wireless Communications (NEWCOM)* – IST FP6 NoE, 2004 – 2007. Coordination of sub-project on cross-layer optimization.
- *CRUISE (Creating Ubiquitous Intelligent Sensing Environments)* – IST FP6 NoE on sensor networks, 2006-2008. Architectural design and security issues in Wireless Sensor Networks.

National Projects where I. Koutsopoulos participates or has participated

- *"Converging FTTx and Broadband Heterogenous Wireless Services over Next-Generation Radio-over-Fiber Passive Optical Networks"*, General Secretariat for Research and Technology (GSRT) Program COOPERATION, 2011-2014.
- *"Resource management and security in broadband wireless networks"*, General Secretariat for Research and Technology (GSRT), program PENED, 2005-2008.

**6. Invited Research Talks**

- *"Machine Learning methods for Network Resource allocation problems"*, Cyprus Institute, Apr. 2024.
- *"Machine Learning methods for Network Resource allocation problems"*, European University of Cyprus, Apr. 2024.
- *"Online Learning for Network resource allocation problems"*, Huawei Mathematical and Algorithmic Sciences Lab, Paris, Jan. 2024.
- *"Online Learning for Network resource allocation problems"*, Northeastern University, Nov. 2023.
- *"Online and Federated Learning for Network resource allocation problems"*, Huawei Lab Munich, Oct. 2023.
- *"Recent research activities on Machine Learning and Resource Allocation problem in future wireless edge architectures"*, Intracom Telecom, Feb 2023.



- “Recent research activities on Machine Learning and Resource Allocation problem in future wireless edge architectures”, Agricultural University of Athens (AUA), January 2023.
- “Machine Learning and Resource allocation problems in Future wireless edge architectures”, University of Bristol, November 2022 (online).
- “Learning and Artificial Intelligence approaches in Health”, EU-Cardio RNA Cost Action, Extended Core Group meeting, October 2022, Samos, Greece.
- “Learning and resource allocation problems in future wireless edge architectures”, Workshop on Intelligence Distribution of Computing in Cloud Continuum (ID3C), in IEEE International Mediterranean Conference on Communications and Networking (MeditCom), September 2022, Athens, Greece.
- “Anthology of Research in edge wireless networks and online platforms”, European University of Cyprus, February 2020.
- “Anthology of Research in edge wireless networks and online platforms”, University of Cyprus, February 2020.
- “Resource allocation and network economics issues in edge wireless networks”, Yale University, November 2019.
- “Resource allocation and network economics issues in edge wireless networks”, Aalto University, Finland, September 2019.
- “Wireless resource and infrastructure sharing challenges in future wireless architectures”, Tutorial presentation in IEEE International Workshop on Computer-Aided Modeling Analysis and Design of Communication Links and Networks (CAMAD), Barcelona, September 2018.
- “Wireless Community Networks and 5G: the 7-Billion-user challenge”, Tutorial presentation at European Conference on Communications and Networking (EuCNC), 2018, Ljubljana, Slovenia (with M. Karaliopoulos, R. Io Cigno, L. Maccari, L. Navarro), June 2018.
- “Research challenges in optimization of mobile crowdsensing and online platforms”, Hamad Bin Khalifa University, Doha, Qatar, June 2017.
- “Research challenges in optimization of mobile crowdsensing and online platforms”, Trinity College Dublin, April 2017.
- “Research challenges in optimization of mobile crowdsensing and online platforms”, Yale University, March 2017.
- “Research challenges in optimization of mobile crowdsensing and online platforms”, Free University of Bolzano, July 2016.
- “Optimization of mobile crowdsensing and recommender systems platforms”, IMDEA Networks, February 2016.
- “Social-diffusion aware recommender systems”, Yahoo! Research Labs, London, July 2015.
- “Incentives and privacy in crowd-sensing and recommender systems”, Yale University, April 2015.
- “Snapshots on Research Challenges on Wireless and Social Networks”, Huawei Research Lab, Paris, February 2015.
- “Snapshots on Research Challenges in Control and Optimization problems for smart cities”, EINS Summer School: From Smart Cities to Engaged Citizens, Volos, Greece, July 2014.
- “Optimal design of incentive-based participatory sensing systems”, Toshiba Labs, UK, June 2014.
- “Optimal design of incentive-based participatory sensing systems”, KTH, June 2014.
- “Optimal policies for smart grid demand control and for incentive-driven participatory sensing systems”, Technical University of Darmstadt, February 2014.
- “Optimal incentive-driven participatory sensing systems”, Yahoo! Research labs, Barcelona, May 2013.

- "Game theoretic framework for privacy preservation in recommendation systems", Yahoo! Research labs, Barcelona, Sept. 2012.
- "Cross-layer Architectures", GREENET project Seminar, Barcelona, Oct. 2012.
- "Games and Optimization for Wireless Resource Allocation", Communications and Networking Research Group, EECS Dept., Massachusetts Institute of Technology (MIT), Boston, March 2011.
- "Auction Mechanisms for Network Resource Allocation", Institute for Telematics and Informatics, CERTH, Oct. 2010.
- "Client and Server Games in Peer-to-peer networks", Young European Queuing Theorists Workshop (YEQT) III, Eindhoven, Nov. 2009.
- "Energy efficient estimation and spatial correlation in wireless sensor networks", Fraunhofer Institute - MCI German Sino Lab, Berlin, Nov. 2009.
- "Distributed optimization, game theory and reputation in peer-to-peer networks", Thomson Research Lab, Paris, April 2009.
- "Distributed Bandwidth Allocation Algorithms for peer-to-peer networks", Politecnico di Torino, February 2009.
- "Challenges in Resource Allocation and Intrusion Detection in distributed wireless environments", TUC, Crete, Aug. 2008.
- "Resource allocation and security issues in wireless networks", University of California, Riverside, February 2008.
- "A statistical framework for modeling wireless network attacks", Workshop on Security and Wireless Sensor Networks, PIMRC 2007, Athens, September 2007.
- "Security and spectrum allocation issues in Cognitive Radio networks", NEWCOM Workshop on Flexible radio, IMEC, Belgium, February 2007.
- Lectures: "From fundamental to modern aspects of wireless communications" and "Advanced topics in ad-hoc and sensor networking", Summer School "Advances in Beyond 3G Wireless Communications and Networks", Santorini, September 2006.
- "Issues in wireless network security and misbehavior", Institute Mechanique and Electrotechnique (IMEC), Leuven, Belgium, September 2006.
- "Advances in Cross-layer designs of wireless networks", NEWCOM Workshop, in conjunction with ICC 2006, Istanbul, Turkey, June 2006.
- "Security of Wireless Networks and protection from malicious attacks", 2nd Balkan Security Forum, Thessaloniki, June 2006.
- "Access layer misbehavior detection issues in wireless networks", University Polytechnic Catalunya (UPC), Barcelona, Spain, April 2006.
- "Challenges in access layer misbehavior detection in wireless networks", Technical University of Denmark, Copenhagen, March 2006.
- "A framework for MAC layer misbehavior detection in wireless networks", University of Washington, Seattle, June 2005.
- "Security and Legitimate Protocol operation in wireless networks", Workshop on Security of Broadband Wireless Networks, European Parliament, Brussels, Belgium, May 2005.
- "Cross-layer based resource allocation and CSI management in wireless networks", Forschungszentrum Telekommunikation Wien (FTW), Vienna, Austria, April 2005.



- "Cross-layer design considerations for energy-efficient multimedia transmission in wireless multi-hop networks", NEWCOM Workshop "Wireless Week in Bologna", Bologna, Italy, January 2005.
- "Cross-layer design issues in wireless networks", Centre Technologic de Telecommunications de Catalunya (CTTC), Barcelona, Spain, September 2004.
- "Resource allocation issues in broadband wireless networks with OFDM signaling", University of Maryland Baltimore County (UMBC), December 2002.
- "Wireless broadband networks: Where is the key to heaven?", Graduate Seminar Series, Department of Electrical and Computer Engineering, University of Maryland College Park, December 1999.

## 7. Students and Teaching

### 7.1. Student supervision

#### 7.1.1. Doctoral dissertations supervised

- **Dimitrios Kastrinakis**: Quantum networks, 6/2025-present, AUEB.
- **Foivos Charalambakos**: Explainability in AI, 10/2022-present, AUEB.
- **Thomas Tsouparopoulos**: Federated and Distributed AI in Wireless Edge architectures, 10/2022-present, AUEB.
- **Dimitrios Kafetzis**: Machine Learning applications in UAVs and edge computing platforms, 3/2019- present, AUEB.
- **Ioannis Papageorgiou**: Design and implementation of resource allocation mechanisms in Software defined mobile networks, 6/2021-present, AUEB
- **Spyros Chadoulos**: Demand forecasting and energy consumption recommendations for smart grid consumer engagement through Deep Learning and Reinforcement Learning, 11/2019-6/2025, AUEB (co-supervised with G. Polyzos).
- **Sotirios Nikoloutsopoulos**: Federated. Continual and Meta-Learning algorithms for Multi-task settings, 2/2021-12/2024, AUEB (co-supervised with M. Titsias).
- **Livia Chatzileftheriou**: Resource allocation, Content Recommendation, and Online Learning Mechanisms for Mobile Edge Computing, 5/15 – 6/2022, AUEB; now postdoctoral researcher with IMDEA Research Institute, Madrid, Spain.
- **George Darzanos**: Cloud computing and 5G resource management with network economics methods, 1/2014-2/2022, AUEB (co-supervised with G. Stamoulis); now with EY, Greece; was postdoctoral researcher with AUEB.
- **Angeliki Anastopoulou**: Economic mechanisms design for prosumer participation in electricity markets, graduated December 2020, AUEB (co-supervised with G. Stamoulis); now with the Regulatory Energy Authority, Greece.
- **George Iosifidis**: "Spectrum and Storage Capacity Management methods using network economics and optimization methods", graduated May 2012; now an Associate Professor with Technical University of Delft; was an Assistant Professor at Trinity College, Dublin; was post-doctoral researcher at Yale University.
- **Lazaros Gkatzikis**: "Optimization and Game theory techniques for energy-constrained networked systems and the smart grid", graduated July 2013; now with i-Sense group, NTUA; was a senior standardization specialist

at Nokia Bell Labs, Paris; was a research staff member at Huawei Research Lab, Paris; was post-doctoral researcher at KTH.

- **Stratos Keranidis:** "Design and implementation of resource allocation algorithms for wireless networks", graduated June 2014; now CEO at domX, GR; was a post-doctoral researcher at UTH.
- **Vassiliki Hatzi:** "Energy management and consumer modeling in smart grid systems", graduated February 2017.

#### 7.1.2. M.Sc. Theses supervised

- **Despina Georgiadi:** Explainable Artificial Intelligence with surrogate models trained on multiple XAI metrics, AUEB, June 2025.
- **Ioannis Matsoukas:** Design and implementation of Digital Twins in mobile networks, AUEB, 2025
- **Anastasios Aggelidis:** Investigating Hallucinations in AI-based text generation using semantic entropy, AUEB, 2025.
- **Konstantinos Vechlidis:** Continual Learning in Encoder-Decoder Computer Vision Architectures, AUEB, Dec. 2024.
- **Odysefs Diamantopoulos-Pantaleon:** Residential Energy Consumption Optimization through Reinforcement Learning, AUEB, Nov. 2023.
- **Sofia Drougka:** Cybersecurity and network forensics in mobile ad-hoc networks, AUEB, Feb. 2023.
- **Christos Markakis:** Machine learning methods for responsible gaming, AUEB, Nov. 2021
- **Athanasios Nikas:** Tackling the cold-start problem in Recommender systems, AUEB, Nov. 2021.
- **Thomas Tsouparopoulos:** New algorithms and practical implementation issues in Federated Learning, AUEB, Oct. 2021.
- **Alexandra Athanasakou:** Recommender systems for smart grid mobile apps, AUEB, May 2021.
- **Panagiotis Kolozis:** Maritime routing and navigation using reinforcement learning, AUEB, Sept. 2020.
- **Eleftherios Harteros:** Federated learning for wireless networks, AUEB, Sept. 2020.
- **Spyros Hadoulos:** Machine learning applications for demand and supply prediction in smart grid, AUEB, July 2019; continued to Ph.D.
- **Spyros Fourakis:** Object recognition with Machine Learning, AUEB, March 2019.
- **Konstantinos Kontoulis:** Behavior-aware mobile app design, AUEB March 2019.
- **Georgios Aggeloudis:** Data-driven mobile video quality assessment, AUEB, June 2019.
- **Panagiotis Spentzouris:** Optimization problems in mobile and online advertising, AUEB, February 2018, now a research engineer with MPASS Ltd., Greece.
- **Gregory Maragkakakis:** Data analytics for cloud troubleshooting, AUEB, in collaboration with Nokia Athens R&D center (co-supervised with G.C. Polyzos), February 2017; now a Machine Learning engineer at WINGS ICT solutions; was an engineer with Accepted Ltd.
- **Dimitrios Sideratos:** Auction mechanisms for Big Data, AUEB, February 2014; now big data engineer at Channel VAS; was with Hellenic Telecommunications Organization (OTE).
- **Evgenia Noutsis:** The impact of social networks on mobile data operator mechanisms, AUEB, February 2014; Now a Research Engineer with Nokia Networks, Greece.
- **Dimitrios Hatzopoulos:** Energy-efficient scheduling in cloud computing systems July 2013; now a research Assistant Professor at HKUST, HK; was Ph.D. student at HKUST.
- **Dimitrios Giatsios:** Misbehavior in cross-layer network optimization, Nov. 2011; now a Ph.D. student at UTH.

- **Vasilios Miliotis:** Spectrum sensing algorithms in wireless cognitive networks, June 2008; now a senior researcher with UTH; was Ph.D. student at UPC, Barcelona.
- **George Iosifidis:** Peer-to-peer network optimization algorithms for utility maximization, May 2007, continued to Ph.D.
- **Konstantinos Aggelis:** Scheduling and beam-forming methods for maximum throughput in wireless networks, June 2005.

#### 7.1.3. B.Sc. Theses supervised

- **Sarantia Mourelatou:** Multi-modal AI for medical applications, AUEB, ongoing.
- **Elisavet Dokola:** Enhancing network security resilience: A comprehensive study on flood attacks, network forensics and the ELK stack, AUEB, March 2024.
- **Alexios Filippakopoulos:** Federated Split Learning with Multi-exit NNs: Achieving both personalization and generalization, AUEB, June 2024.
- **Panagiotis Pappas:** Implementation of attacks on CORE/EMANE in MANETs, AUEB, 2023.
- **Dimitrios Houliaras:** Implementation of SDN routing protocols, AUEB, 2022.
- **Christos Harmantas:** Implementation of routing protocols in MANETs, AUEB, 2021.
- **George Cheirmpas:** Mobile data sharing plans, AUEB, 2021.
- **Yiannis Fourfouris:** Image recognition applications for AR, AUEB 2020.
- **Zisis Biloroglou:** Image pre-processing and machine learning for drones, AUEB 2020.
- **Eleftherios Harteros:** Front platform development for a mobile app for breast image processing for cancer patients, AUEB 2019.
- **Aristides Pilichos:** Mobile app design for sharing economy in agricultural areas (AUEB, 2017).
- **Vassiiki Georgoudi:** Data analytics for recommendation systems (UTH, 2012); now with Nokia Networks, Greece.
- **Dimitrios Hatzopoulos:** Game theoretic approaches on the interference channel (2010).
- **George Kyriakou, Donatos Stavropoulos:** Collision discrimination algorithms in wireless LANs (co-supervised with T. Korakis) (2010)
- **Tryfon Trifonopoulos:** Coping with inaccurate state information in IEEE 4G 802.16m networks (2010)
- **George Zotos:** Backpressure delay aware algorithms for wireless networks (2009)
- **Stratos Keranidis, Vaggelis Galanis:** Implementation of Network Coding methods in wireless IEEE 802.11 cards (2008)
- **Vassiliki Hatzi:** Distributed detection of attacks in wireless networks (2008)
- **Lazaros Gkatzikis:** Peer-to-peer network algorithms for file retrieval delay minimization (2006)
- **George Tihogiorgos:** Peer-to-peer network algorithms for file retrieval delay minimization (2006)
- **Apostolia Papapostolou:** Relay-assisted cooperative communications and networking (2006)
- **Ioanna Papafili:** Resource allocation and spatial processing techniques for wireless systems with multiple receiver antennas (2006)
- **Christos Zacharakopoulos:** QoS provisioning techniques in peer-to-peer networks (2005)
- **Dimitris Batzogiannis:** Joint 3-layer designs for wireless networks (2005)

#### 7.1.4. Participation in Ph.D. committees

- Dimitrios Pappas, “Deep Neural Networks for Biomedical Question Answering”, AUEB, 3/23.

- Konstantinos Chounos, "Study and development of algorithms for managing and optimizing wireless resources in environments of multiple technologies", UTH, 11/2021.
- Qiaofeng Qin, "A hybrid SDN-based architecture for wireless networks", Yale University (thesis commentator).
- Ioannis Kasdaridis, "Design, development and performance evaluation of ultra-low-power wireless sensor network devices", UTH 7/2021.
- Sylvie Kozeil, "From data collection to electric grid performance: How can data analytics support asset management decisions for an efficient transition toward smart grids?", KTH, 4/2021 (thesis opponent).
- Virgilios Passas, "Design and implementation of resource allocation mechanisms in 5G heterogeneous wireless networks", UTH, 3/2021.
- Marilena Minou, "Economic modeling and optimization of smart grids using demand response techniques", AUEB 7/2019.
- Georgios Tsaousoglou, "Demand-side management in smart grid: algorithmic, economic and game-theoretic aspects of active consumer participation", NTUA, 3/2019.
- Anna Kefala, "Quality of Learner Experience in technology-mediated learning: a conceptual layered framework, model instantiation guidelines and empirical investigation", AUEB, 1/2019.
- Rong Du, "Optimal Networking in Wirelessly Powered Sensor networks", KTH, 10/2018 (thesis opponent and Ph.D. committee member)
- Yiannis Thomas, "Multi-path internet transport", AUEB, 7/2018.
- Antonia Nasiakou, "Next generation energy markets and applications", University of Thessaly, 3/2018.
- Spyros Papafragkos, "Performance analysis of distributed control algorithms in queueing systems", AUEB 12/2017.
- George Amanatidis, "Algorithmic and mechanism-design aspects of problems with limited or no payments", AUEB, 8/2017.
- Luigi Vigneri, "Vehicles as a mobile cloud: Modeling, optimization and performance analysis", Universite Nice Sophia Antipolis, 7/2017.
- Harilaos Stais, "Congestion and error control for multi-party content distribution", AUEB, 10/2016.
- Christos Tsilopoulos, "Multicast forwarding in future information-centric network architectures", AUEB, 3/2016.
- Konstantinos Poularakis, "Intelligent information caching in novel network architectures", UTH, 12/2015.
- Konstantinos Houmas, "Resource management in wireless ad-hoc networks", UTH, 9/2015.
- Vaggelis Douros, "Resource allocation and game theory in wireless networks", AUEB, 12/2014.
- Leandros Maglaras, "Message Dissemination in vehicular ad-hoc networks", UTH, 6/2014.
- Apostolos Apostolaras, "Design and implementation of resource allocation protocols in wireless networks, utilizing testbed experimentation platforms", UTH, 6/2014.
- Eleni Agiatzidou, "Incentive mechanisms for the enforcement of collaboration between ISPs", AUEB, 9/2013.
- Vassilis Sourlas, "Replication management and cache-aware routing in information-centric networking", UTH, 7/2013.
- Ioanna Papafili, "Incentive-based caching mechanisms for overlay Traffic Management", AUEB, 7/13.
- Alexandros Kostopoulos, "Research on Economic Mechanisms and Incentives for Technologies of Future Internet", AUEB, 10/2012.
- Pantelis Frangoudis, "User centrism in wireless networking", AUEB, 4/2012.

- Elli Kartsakli, "Cross-layer Design and Optimization of Medium Access Control Protocols for WLANs", University Polytechnic Catalonia (UPC), 2/2012.
- Christos Papathanasiou, "Radio resource management with Cross-layer designs in broadband wireless access", UTH, 12/2010.
- Anna Satsiou, "Cooperation and Fair Resource allocation in communication networks", UTH, 11/2010.
- Ioannis Socratous, "Generalized robust estimators for a class of systems", University of Cyprus, 8/2010.
- Dimitris Zisiadis, "Security and Network Management in modern telecommunications networks", UTH, 7/2010.
- Konstantinos Katsaros, "An information-centric overlay network architecture for content distribution and mobility support", AUEB, 07/2010.
- Filippas Koravos, "Resource allocation and defense against DoS attacks in peer-to-peer networks", UTH, 8/2008.
- George Athanasiou, "Cross-layer resource allocation algorithms in wireless networks", UTH, 6/2009.
- Sofie Pollin, "Cross-layer resource allocation for quality of service and energy optimization in wireless networks, Katholic University of Leuven, Belgium, 9/2006.
- Eleftherios Karipidis, "Transmit beam-forming to multiple co-channel multi-cast groups", Technical University of Crete, 08/2008.

## 7.2. Teaching Experience

### 7.2.1. Core undergraduate courses

- "Communication Networks" (AUEB, core 3<sup>rd</sup> year undergraduate), Fall 2024.
- "Introduction to Computer Science" (AUEB, core 1st year undergraduate), Fall 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022.
- "Computer Systems Organization" (AUEB, core 2nd year undergraduate), Fall 2013, 2014, 2015, 2016 (co-teaching), 2017.
- EE 342 "Digital Communications", (UTH, 3<sup>rd</sup> year core undergraduate), Spring 2009, 2010.

### 7.2.2. Elective undergraduate courses

- "Performance analysis of complex networked systems" (AUEB, undergraduate), Spring 2019, 2020, 2021, 2022, 2023, 2025.
- EE 568 "Network optimization" (UTH, 5th year undergraduate): one- and many-variable optimization, linear and non-linear programming, convex optimization, and their applications in network modeling and performance analysis. Fall 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011 (new course).
- EE 569 "Advanced topics in networking: Game theory" (UTH, 5<sup>th</sup> year undergraduate/colisted as graduate): game theory, Nash equilibria, auctions, and their applications in network modeling, Fall 2010 (new course).
- EE 440 "Wireless communications" (UTH, 3rd year undergraduate): wireless propagation modeling, channel access and signaling, power control. Spring 2003, 2005, 2006, 2007, 2012 (new course).
- EE 546 "Estimation and Detection Theory", (UTH, 4<sup>th</sup> year undergraduate), Spring 2008, 2009, 2010.
- EE 448 "Information and Coding Theory", (UTH, 5<sup>th</sup> year undergraduate), Fall 2006, 2007, 2011.
- EE 564 "Computer Networks II" (UTH, 4<sup>th</sup> year undergraduate) – Spring 2006 (co-teaching).
- "Advanced topics in Networking" (UTH, graduate), Fall 2004, 2006.
- EE 310 "Mathematics for Telecommunications" (UTH 3<sup>rd</sup> year undergraduate), Spring 2003.

### 7.2.3. Graduate courses

- “Research methodology” (AUEB, Master’s program on Computer Science), Fall 2024.
- “Social Networks: Theory and practice” (AUEB, M.Sc. program on Computer Science), Spring 2019, 2020, 2021, 2022, 2023.
- “Recommender systems” (AUEB, M.Sc. program on Data Science); Spring 2019, 2020, 2021, 2022.
- “Machine Learning” (AUEB, M.Sc. programs on Computer Science and Information Systems), Spring 2018.
- “Mobile and pervasive systems” (AUEB, M.Sc. program on Information Systems), Spring 2013 (co-teaching), 2015, 2016 (co-teaching).
- “Performance analysis of networks and systems” (AUEB, M.Sc. program on Computer Science), Spring 2013 (co-teaching), 2014, 2016.
- “Estimation and Detection Theory”, (UTH graduate), Fall 2008, 2009.
- EE 684 “Advanced topics in wireless communication networks (UTH, graduate): stochastic control, dynamic programming and Lyapunov optimization and their application in wireless network optimization problems. Spring 2011, 2012 (new course).

### Lecture Notes

- I. Koutsopoulos, Lecture Notes, “Information and Coding Theory”, University of Thessaly.
- I. Koutsopoulos, Lecture Notes, “Advanced topics on Networking”, University of Thessaly.
- I. Koutsopoulos, Lecture Notes, “Wireless Communications”, University of Thessaly.
- I. Koutsopoulos, Lectures Notes, “Estimation and Detection theory”.

### Miscellaneous related activities

- Coordination of translation team of book W. Stallings, “Network Security Essentials”, 2005 – 2006.
- Coordination of translation team (in Greek) of book D. Tse and P. Viswanath, “Fundamentals of Wireless Communications”, 2007-2008.
- Teaching Assistant for GRE Math / Analytical Topics, Hellenic American Union, Athens, Greece, 1996-1997.
- Student tutor for undergraduate courses in Engineering Probability, University of Maryland, College Park, 1998-1999.

### 7.3. Professional service

#### 7.3.1. Conference/workshops TPC co-chair

- World Conference on Explainable AI (XAI) 2024 – Special track on Fairness and Trustworthiness with XAI, Organizer, with F. Charalambakos, A. Perotti, A., Panisson, G. Bologna.
- Workshop on Intelligence Distribution of Computing in Cloud Continuum (ID3C), in IEEE International Mediterranean Conference on Communications and Networking (MeditCom), 2022: TPC-co-chair with S. Papavassiliou, D. Dechouniotis, Y. Ghamri-Doudane, S. Coleri, H. Vandierrendonck.
- International Symposium on Modeling and Optimization in Mobile, Ad-hoc and Wireless networks (WiOpt) 2020: TPC-cochair, with V. Subramanian and L. Huang.
- Special Session on “Mobile edge resource allocation for data analytics” in International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2018: TPC co-chair, with G. Iosifidis.



- International Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET), in WiOpt 2017: TPC co-chair, with C. Fischione, P. Giaccone.
- International Workshop on "Networking across disciplines: Communication networks, complex systems and statistical physics (NETSTAT), in IEEE ICC 2013: TPC co-chair, with D. Saad.
- International Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET), in WiOpt 2012: TPC co-chair, with T. Alpcan.

### **7.3.2. Conference/workshop Technical Program Committee Member**

- IEEE INFOCOM 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026.
- ACM Mobihoc, 2009, 2013, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025.
- IEEE International Conference on Machine Learning for Communications and Networking (ICMLCN) 2024, 2025.
- IEEE Int. Conf. on Smart Grid Communications (SmartGridComm), 2012.
- IEEE ICC 2023, Machine Learning for Communications and Networking Track. 2022, 2023, 2024, 2025.
- Workshop on Network Intelligence, IFIP Networking Conference, 2022.
- IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 2022.
- IEEE ICC, Cognitive Radio and AI-enabled network symposium, 2020, 2021.
- IEEE Mediterranean Conference on Communications and Networks (MedComNet), 2020.
- International Conference on Distributed Computing and Networking (ICDCN) 2023.
- IEEE International Symposium on Modeling and Optimization in Mobile, Ad-hoc and Wireless networks (WiOpt) 2006, 2007, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024.
- International workshop on Mining Data for Finance (MIDAS), in ECML/PKDD 2016, 2017, 2018, 2019.
- International Workshop on Resource Allocation, Cooperation and Competition in Wireless Networks (RAWNET), 2014.
- Int. Conf. on Telecommunications (ICT), 2011, 2019
- IEEE Conference on Decision and Control (CDC) 2019.
- International workshop on Mobile Applications (MobiApps), 2018 in MobiWIS 2018.
- International Workshop on Smart Edge Computing and Networking (SmartEdge), in IEEE International Conference on Pervasive Computing and Communications (PerCom), 2018.
- International Workshop on Sustainable Data Centres and Cloud Computing (SD3C), in IEEE/ACM International Conference on Utility and Cloud Computing (UCC 2017).
- IEE Int. Teletraffic Congress (ITC 29), 2017.
- ACM Conf. on Performance Evaluation Methodologies and Tools (VALUETOOLS) 2008, 2009, 2010, 2011, 2012.
- Int. Conf. on Design of Reliable Communication Networks (DRCN), 2018.
- 7<sup>th</sup> EAI Int. Conf. on Game Theory for Networks (GameNets) 2017.
- IEEE Wireless On-demand network systems and services Conference (WONS), 2016.
- IEEE Int. Conf. on Sensors and Ad-Hoc Communications and Networks (SECON) 2008, 2012.
- Int. Workshop on QoS (IWQoS) 2010, 2011, 2012.
- IEEE Int. Symp. on Personal Indoor Mobile Radio Communications (PIMRC), 2008, 2010, 2013, 2014, 2015, 2016.
- Conference on Decision and Game Theory for Security (GameSec) 2010, 2011.

- Int. Conf. on Network Games, Control and Optimization (NetGCoop), 2012, 2014, 2018, 2024.
- Workshop on Internet Trust, Reputation, Identity and Privacy, 2012.
- IEEE 1st Int. Black Sea Conf. on Communications and Networking (BlackSeaCom), 2013.
- IEEE Workshop on Novel Approaches to Energy Management and Evaluation in Wireless Networks, in conjunction with IEEE Int. Conf. on Communications (ICC), 2012.
- IEEE Int. Workshop on Signal Processing Advances in Wireless Communications (SPAWC), 2012, 2019, 2022, 2023, 2024.
- Int. Conf. on Testbed and Research Infrastructures for the development of networks and communities (TRIDENTCOM), 2011, 2012
- Int. Conf. on Computer Communication Networks (ICCCN), 2012.
- Consumer Communications and Networking Conference (CCNC) 2008, 2009
- IEEE Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP), 2008, 2009, 2010, 2011, 2012
- Int. Symp. on a World on Wireless, Mobile and Multimedia Networks (WoWMoM), 2010
- IEEE Veh. Tech. Conf. (VTC), 2009, 2010
- Int. Conf. On Mobile Lightweight Wireless Systems (MOBILIGHT), 2010
- Tyrrhenian International Workshop on Digital Communications (TIWDC), 2009
- TPC Member, 1st International Workshop on Security for Mobile Wireless Communications (SeMIC) 2008.
- Workshop on Secure Network Protocols (NPsec), 2005, 2006, 2007, 2008
- Int. Symp. on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM), 2005, 2006.

#### 7.3.3. Research proposal evaluation

- ERAPERMED work programme proposal evaluator.
- National research project proposal evaluator: State Scholarships Foundation (IKY), Education and Lifelong Learning (program of Reinforcement of postdoc researchers), GSRT.
- Foreign research project proposal evaluator: Cyprus, Serbia, Netherlands, Canada, SFI Ireland, Italian Ministry of Education, Universities and Research (MIUR).

#### 7.3.4. Other

- **Best paper Award Committee**, International Symposium on Modeling and Optimization in Mobile, Ad-hoc, and wireless networks (WiOpt), 2023.
- **Member of organizing committee**: AI@AUEB seminar series.
- **Journal Reviewer**: IEEE Transactions on Control of Network Systems, IEEE Transactions on Information Theory, IEEE Transactions on Smart Grid, IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing, IEEE Transactions on Wireless Communications, IEEE Transactions on Parallel and Distributed Systems, IEEE Transactions on Network Science and Engineering, IEEE Communication Surveys and Tutorials, IEEE Transactions on Network and Service Management, IEEE Communications Letters, IEEE Transactions on Information Forensics and Security, IEEE Transactions on Signal Processing, IEEE Journal on Selected Areas on Communications, ACM Transactions on Knowledge Discovery, IEEE Transactions on Communications, EURASIP Signal Processing Journal, EURASIP Journal on Wireless Communications and Networking, Elsevier Wireless Networks, Virtual Reality (VIRE).
- **Conference Reviewer**: IEEE INFOCOM, IEEE International Symposium on Information Theory (ISIT), ACM SIGMETRICS, ACM MOBICOM, ACM MobiHoc, IEEE WiOpt, IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP), IEEE ICC, IEEE GLOBECOM, IEEE WCNC, IEEE CDC.



- **Senior Member of IEEE** (currently in Communications society; was in Information Theory and Signal Processing societies as well)
- **Member of Technical Chamber of Greece (T.E.E).**
- **Local Arrangements Chair** in Information Theory Workshop (ITW), 2009, Volos, Greece.

### 7.3.5 Mentions in the media

- **Top 2% scientists:** Included in the list of World's top (top 2%) scientists, published by Stanford University. The list is formed based on the publications of the specific scientists, which are most often cited by other authors globally based on standardized cross-reference indices. Years 2020, 2021, 2022, 2023.

Relevant posts:

<https://www.aueb.gr/en/content/global-recognition-12-scientists-athens-university-economics-and-business>,  
<https://www.aueb.gr/en/node/29038>, <https://www.naftemporiki.gr/story/1708774/opa-dodeka-epistimones-tou-stous-korufaious-pagkosmios>,  
<https://www.in.gr/2021/03/31/greece/dodeka-kathigites-tou-oikonomikou-panepistimiou-stous-koryfaious-epistimones-tou-kosmou/>

- Mention of the European NUDGE project: <https://energypress.gr/news/panyropaiki-ereyna-analysis-tis-energeiakis-symperiforas-katanaloton>
- <https://www.aueb.gr/el/opanews/pos-tha-epireasoyme-tin-energeiaki-symperifora-ton-katanaloton>  
<https://www.ot.gr/2023/09/14/academia/oikonomiko-panepistimio-athinon/ta-6-profil-katanaloton-energeias-kai-i-anagki-gia-stoxeymenes-paremvaseis/>

## 8. Administrative tasks

### 8.1. Departmental duties and committees

- *Director of Graduate program on Computer Science* (AUEB, Sept. 2022-Sept 2023 & Sept 2024 - present)
- *Director of the Computer and Communications Systems Division*, Department of Informatics (AUEB, Sept. 2020-Sept. 2022)
- *Member of Ph.D. studies committee.* Responsible for drafting the rules in the Ph.D. studies handbook, evaluating Ph.D. applications and for monitoring the progress and coursework of Ph.D. students (AUEB, 2016-2023)
- *Member of Undergraduate studies committee.* Responsible for updating rules and study curriculum (AUEB, 2018-2023)
- *Member of the external student entrance exam Committee.* Responsible for coordinating the process of yearly exams taken by graduates of other disciplines who wish to enroll to the undergraduate program of the department of Informatics at AUEB (AUEB, 2013-2023)
- *Member of Committee for inter-university student transfer.* The role of the committee was to examine applications of undergraduate students for inter-university transfer, check corresponding social criteria, and accept or reject applications (AUEB, 2017-2022)
- *Member of the Department publicity and public relations Committee* (AUEB, 2016-2022)
- *Member of Committee for inter-university student transfer.* The role of the committee was to examine applications of undergraduate students for inter-university transfer, check corresponding social criteria, and accept or reject applications (UTH, 2005-2013)

## 8.2. University committees

- Chair of University's Technical Board (AUEB, 2022-2025)
- Member of committee to explore participation of AUEB in a consortium proposal for the European Universities Call 2020 (AUEB, 2019)
- Member of acceptance committee for AUEB new building, Athens (AUEB, 2017)
- Committee member for university technical contest coordination (specification checking, candidate offers evaluation, selection) (AUEB, 2014-2016)

## 9. Brief Curriculum Vitae

Iordanis Koutsopoulos is Professor at the Department of Informatics of Athens University of Economics and Business (AUEB) since 2021. He was born on December 17, 1974 in Athens, Greece. He obtained the Diploma in Electrical and Computer Engineering from the National Technical University of Athens (NTUA), Athens, Greece, in 1997, and the M.Sc. and Ph.D. degrees in Electrical and Computer Engineering from University of Maryland College Park (UMCP) in 1999 and 2002 respectively.

He has been an Associate Professor (2016-2021) and an Assistant Professor (2013-2016) with the Department of Informatics of Athens University of Economics and Business. He has been Assistant Professor (2010-2013), Lecturer (2005-2010) and Adjunct Lecturer (2003-2005) with the Department of Computer Engineering and Communications (now Department of Electrical and Computer Engineering) of University of Thessaly. From 2005 to 2015 he was affiliated as senior research staff with the with Center for Research and Technology Hellas, Institute for Telematics and Informatics (CERTH-ITI).

During his sabbatical in Fall 2012, he was a visiting research scientist with Yahoo! Research Labs, Barcelona, Spain. During the summer of 2005, he held a visiting scientist position with the University of Washington, Seattle, USA. He has held internship positions with Hughes Network Systems (HNS), Germantown, MD, Hughes Research Laboratories LLC, Malibu, CA, and Aperto Networks Inc., Milpitas, CA, in the summers of 1998, 1999 and 2000 respectively. From 1997 to 2002 he was a Fulbright Fellow. From 1997 to 2002 he was a Graduate Research Assistant with the Institute of Systems Research (ISR) of UMCP.

He was awarded a European Research Council (ERC) runner-up award (co-funded by Greece and the European Union / European Social Fund) through the Operational Program "Education and lifelong learning" for the project "RECITAL: Resource Management for Self-coordinated Autonomic Wireless Networks", €690K (single investigator), for the period 2012-2015. For the period 2005-2007 he was awarded a Marie Curie International Reintegration Grant (IRG).

He has received 3 best-paper awards for papers in the IEEE ECOFEC workshop 2019 (held in conjunction with IEEE INFOCOM), in the ACM HotPost workshop 2016 (held in conjunction with ACM Mobihoc), and in the ACM WinTECH 2013 workshop (held in conjunction with ACM Mobicom). He has co-authored about 200 research papers which have attracted over 6.320 citations, forming an h-index of 36. He has attracted about €7,2M of funding from European, national and private funding sources. He has been PI, co-PI and technical coordinator for several Horizon Europe, H2020 and FP7 European projects and for national projects.

He currently serves as the Director of the Graduate program on Computer Science.

His research interests are in the broad area of applied Artificial Intelligence and network systems control and optimization, with applications to wireless networks, mobile and edge computing systems, cloud computing systems, and the smart grid. Other research interests span recommender systems and online advertising. In the

last 5-6 years he conducts research on modern forms of learning applied to network problems, such as Federated Learning, Continual Learning, Reinforcement Learning, and Explainable AI.

### 9.1 Personal Information

- **Citizenship:** Greek
- **Military obligations:** fulfilled, 2003-2004 (basic education: special forces; main service: infantry)
- **Languages:** English (fluently-CPE Cambridge), German (moderate-Mittelstufe), French (basic), Greek (native).