



# Spyros Voulgaris

## Curriculum Vitae

### Contact Information

**Address** Office 501, Troias 2, Athens 11362, Greece  
**Telephone** +30 210 8203 404  
**Email** [voulgaris@aueb.gr](mailto:voulgaris@aueb.gr)  
**Web page** <https://acropolis.aueb.gr/~spyros>

### Education

- Ph.D. Vrije Universiteit Amsterdam, The Netherlands**  
Department of Computer Science  
Thesis: "Epidemic-Based Self-Organization in Peer-to-Peer Systems"  
Advisor: Prof. Maarten van Steen
- M.Sc. University of Michigan, Ann Arbor, Michigan, USA**  
Department of Electrical Engineering and Computer Science  
Advisor: Prof. Marios C. Papaefthymiou
- B.Sc. University of Patras, Greece**  
Computer Engineering and Informatics Department  
Thesis advisor: Prof. Paul Spirakis  
Graduated with distinction (4th in a class of 150 students)

### Work Experience

- Current Position** **Assistant Professor in Computer Science** (Feb 2018–now)  
Department of Informatics  
Athens University of Economics and Business
- Past Positions** **Assistant Professor** (Oct 2014–Jan 2018)  
Computer Engineering and Informatics Department  
University of Patras, Greece
- Assistant Professor** (Oct 2008–Sep 2014)  
Department of Computer Science  
Vrije Universiteit Amsterdam, The Netherlands
- Postdoc Researcher** (Jul 2006–Sep 2008)  
The Systems Group (led by Prof. Gustavo Alonso)  
ETH Zurich, Switzerland

**PhD Candidate** (Oct 2001–May 2006)

Department of Computer Science  
Vrije Universiteit Amsterdam, The Netherlands

**Visiting Researcher at IRISA/INRIA, Rennes, France** (Jun 2005–Jul 2005)  
Collaboration with Prof. Anne-Marie Kermarrec

**Visiting Researcher at Universita di Bologna, Italy** (Feb 2005–Mar 2005)  
Collaboration with Dr. Mark Jelasity and Prof. Ozalp Babaoglu

**Microsoft Research Cambridge, United Kingdom** (May 2003–Jul 2003)  
Internship under the supervision of Prof. Anne-Marie Kermarrec

**Hughes Network Systems, Maryland, USA** (Aug 1999–Aug 2001)  
Full-time employment in Network Management

**HP Labs, Palo Alto, California, USA** (May 1998–Jul 1998)  
Internship on building network monitoring tools

## Funded Projects

- “*Publish/Subscribe Framework for the Cardano Ecosystem*”  
Funded by **Input Output Global (IOG)**  
Nov 2022 – Apr 2024 (18 months)
- “*Eclipse and DoS-Resilient Overlays for High-Performance Group Communication*”  
Funded by the **Ethereum Foundation**  
Oct 2022 – Sep 2023 (12 months)
- “*Eclipse-Resistant Network Overlays for Fast Data Dissemination*”  
Funded by **Input Output Hong Kong (IOHK)**  
Nov 2020 – Apr 2022 (18 months)
- “*MLDHT: Multi-Level DHT Design and Evaluation for IPFS*”  
Funded by **Protocol Labs**  
<https://mm.aueb.gr/projects/MLDHT>  
Oct 2020 – Sep 2021 (12 months)
- “*SOFIE: Secure Open Federation for Internet Everywhere*”  
Funded by **EU Horizon 2020**  
<https://www.sofie-iot.eu/>  
Jan 2018 – Dec 2020 (36 months)

## PhD Students

- Alexandros Antonov: *in progress*, started 2022
- Evangelos Kolyvas: *in progress*, started 2020
- Albana Gaba: *Exploring Cross-Layer Dependencies in Congested Wireless Ad Hoc Networks*, 2008–2014 (with Maarten van Steen)
- Matt Dobson: *Low-power Epidemic Communication in Wireless Ad Hoc Networks*, 2008–2013 (with Maarten van Steen)
- Ania Chmielowiec: *Decentralized k-Clique Matching*, 2008–2014 (with Maarten van Steen)

## Community Service

*Invited Talks* **Selected Invited Talks**

- “Demystifying Bitcoin and Blockchain Systems”  
IEEE Student Branch, University of Patras  
Patras, Greece, Dec 2017
- “P2P Systems and Bittorrent Architecture”  
IEEE Student Branch, University of Patras  
Patras, Greece, Dec 2016
- “A Pinch of Randomness Brings Out the Structure”  
KTH / SICS  
Stockholm, Sweden, Sep 2013
- “Synchronizing Extreme Wireless Distributed Systems”  
Technical University of Delft  
Delft, The Netherlands, Feb 2012
- “Gossip-based Networking: Self-Organizing Techniques for Large-Scale Distributed Applications”  
Conférence Universitaire de Suisse Occidentale (CUSO) Winterschool 2011  
Les Diablerets, Switzerland, Jan 2011
- “Managing Very Large-Scale Overlays Through Epidemics”  
Athens University of Economics and Business  
Athens, Greece, Mar 2009
- “Managing Very Large-Scale Overlays Through Epidemics”  
Technical University of Crete  
Chania, Greece, Sep 2008
- “Self-Organization through Epidemics”  
2nd International Workshop on Mobility, Algorithms, and Graph theory In Dynamic Networks  
Reykjavik, Iceland, Jul 2008

**Ph.D. I have served as an opponent in the following PhD committees:**  
**Committees (in reverse chronological order)**

- 25 Dimitrios Tomaras (supervisor: Vana Kalogeraki)  
Athens University of Economics and Business, Greece, Oct 2022  
Title: “Urban Data Analytics and Applications in the Big Data Era”
- 24 Theodoros Sotiropoulos (supervisor: Diomidis Spinellis)  
Athens University of Economics and Business, Greece, Oct 2022  
Title: “Abstractions for Software Testing”
- 23 Stefanos Georgiou (supervisor: Diomidis Spinellis)  
Athens University of Economics and Business, Greece, Dec 2020  
Title: “Energy and Run-Time Performance Practices in Software Engineering”
- 22 Thomas Papastergiou (supervisor: Vasileios Megalooikonomou)  
University of Patras, Greece, Jun 2020  
Title: “Καταναεμημένη Ταυςτική Αποδόμηση στη Μηχανική Μάθηση για Πλήρως ή Μερικώς Παρατηρούμενα Πολυδιάστατα Δεδομένα Μεγάλου Όγκου”
- 21 Pierre-Louis Roman (supervisors: François Taïani, Davide Frey)  
Université de Rennes 1 & IRISA, France, Dec 2018  
Title: “Exploring heterogeneity in loosely consistent decentralized data replication”
- 20 Yannis Thomas (supervisor: George C. Polyzos)  
Athens University of Economics and Business, Jul 2018  
Title: “Multipath Internet Transport”

- 19 Claudio Martella (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, Feb 2017  
Title: "Crowd Textures: From Sensing Proximity to Understanding Crowd Behavior"
- 18 David van Moolenbroek (supervisor: Andrew S. Tanenbaum)  
Vrije Universiteit Amsterdam, Sep 2016  
Title: "Building a Reliable Storage Stack"
- 17 Tom Hruby (supervisor: Andrew S. Tanenbaum)  
Vrije Universiteit Amsterdam, Jun 2016  
Title: "On the Design of Reliable and Scalable Networked Systems"
- 16 Mihai Capota (supervisor: Dick Epema)  
TU Delft, Jul 2015  
Title: "Theory and Practice of Size-based Scheduling"
- 15 Raja Appuswamy (supervisor: Andrew S. Tanenbaum)  
Vrije Universiteit Amsterdam, Jun 2014  
Title: "Building a File-Based Storage Stack: Modularity and Flexibility in Loris"
- 14 Lorenzo Leonini (supervisor: Pascal Felber)  
University of Neuchatel, Switzerland, Apr 2014  
Title: "Splay: A toolkit for the design and evaluation of Large Scale Distributed Systems"
- 13 Roelof Kemp (supervisor: Henri Bal)  
Vrije Universiteit Amsterdam, Apr 2014  
Title: "Programming Frameworks for Distributed Smartphone Computing"
- 12 Suhail Youssaf (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, Feb 2014  
Title: "The design of a cosmic-ray detector as a wireless distributed system"
- 11 Miguel Matos (supervisor: Rui Oliveira)  
University of Minho, Portugal, Oct 2013  
Title: "Epidemic Algorithms for Large-Scale Data Dissemination"
- 10 Cristian Rossow (supervisor: Herbert Bos)  
Vrije Universiteit Amsterdam, Apr 2013  
Title: "Using Malware Analysis to Evaluate Botnet Resilience"
- 9 Jan-Mark Wams (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, Dec 2012  
Title: "Unified Messaging Atop a Cloud of Micro-Objects"
- 8 Nick Palmer (supervisor: Henri Bal)  
Vrije Universiteit Amsterdam, Oct 2012  
Title: "Smartphones: A Platform For Disaster Management"
- 7 Rena Bakhshi (supervisor: Wan Fokking)  
Vrije Universiteit Amsterdam, Jan 2011  
Title: "Gossiping Models: Formal Analysis of Epidemic Protocols"
- 6 Daniela Gavidia (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, May 2009  
Title: "Epidemic-style information dissemination in large-scale wireless networks"
- 5 Cristian Rossow (supervisor: Herbert Bos)  
Vrije Universiteit Amsterdam, Apr 2013  
Title: "Using Malware Analysis to Evaluate Botnet Resilience"
- 4 Jan-Mark Wams (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, Dec 2012  
Title: "Unified Messaging Atop a Cloud of Micro-Objects"

- 3 Nick Palmer (supervisor: Henri Bal)  
Vrije Universiteit Amsterdam, Oct 2012  
Title: "Smartphones: A Platform For Disaster Management"
- 2 Rena Bakhshi (supervisor: Wan Fokking)  
Vrije Universiteit Amsterdam, Jan 2011  
Title: "Gossiping Models: Formal Analysis of Epidemic Protocols"
- 1 Daniela Gavidia (supervisor: Maarten van Steen)  
Vrije Universiteit Amsterdam, May 2009  
Title: "Epidemic-style information dissemination in large-scale wireless networks"

#### **Open Source Development of open-source software**

I have developed PeerNet (<https://github.com/PeerNet>), an open-source platform for the development, testing, and deployment of P2P applications. In SIMULATION mode, PeerNet allows the deterministic and reproducible simulation of protocols on a single machine, suitable for debugging and understanding the inner workings of decentralized protocols. In NETWORK mode, it can execute the same protocols in a real environment (e.g., the Planetlab or any cluster, grid, or IaaS cloud) without any changes in the implementation, without even the need to recompile the code.

## Administrative Work

### **Committees Participation in committees**

- Αναπληρωτής Αντιπρόσωπος του ΟΠΑ στον οργανισμό Ελεύθερου Λογισμικού / Λογισμικού Ανοικτού Κώδικα (ΕΛ/ΛΑΚ) (2023-09–now)
- Συντονιστική Επιτροπή ΠΜΣ Ασφάλειας στην Ανάπτυξη Πληροφοριακών Συστημάτων (2023-09–now)
- Επιστημονικός Υπεύθυνος NOC (2022-01–2025-01)  
Δεύτερη θητεία
- Επιτροπή ERASMUS+ (2021-10–now)
- OMEA (2021-10–now)
- Επιτροπή Αξιολόγησης Μελών ΕΤΕΠ (2021-10–now)
- ΔΑΣΤΑ (2021-10–2023-09)  
Μέλος στην επιτροπή διασύνδεσης με την αγορά
- Επιστημονικός Υπεύθυνος NOC (2019-01–2022-01)  
Υπεύθυνος για τον εξοπλισμό του NOC, τις αναθέσεις έργων (π.χ., για την ιστοσελίδα του πανεπιστημίου), τη σύναψη συμβάσεων με προσωρινά εργαζόμενους στο NOC, κ.ά.
- Συντονιστική Επιτροπή ΠΜΣ Επιστήμης Υπολογιστών (2018-10–now)

## Publications

### **Journals Journals, in reverse chronological order**

- J17 V. A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G. C. Polyzos. Decentralized Authorization in Constrained IoT Environments exploiting Interledger Mechanisms. Elsevier Computer Communications, 2020
- J16 S. Voulgaris, N. Fotiou, V. A. Siris, G. C. Polyzos, M. Jaatinen, Y. Oikonomidis. Blockchain Technology for Intelligent Environments. MDPI Future Internet, vol. 11(10), Oct 2019
- J15 V. A. Siris, P. Nikander, S. Voulgaris, N. Fotiou, D. Lagutin, G. C. Polyzos. Interledger Approaches. IEEE Access, vol. 7:89948–89966, Jul 2019

- J14** D. Frey, M. X. Makkes, P.-L. Roman, F. Taiani, S. Voulgaris. Dietcoin: Hardening Bitcoin Transaction Verification Process for Mobile Devices. *ACM Proceedings of the VLDB Endowment*, vol. 12(12):1946–1949, Aug 2018
- J13** S. Voulgaris, M. Dobson, M. van Steen. Decentralized Network-level Synchronization in Mobile Ad Hoc Networks. *ACM Transactions on Sensor Networks*, vol. 12(5):1–42, Mar 2016
- J12** A. Chmielowiec, S. Voulgaris, M. van Steen. Decentralized Group Formation. *Springer Journal of Internet Services and Applications*, 2014
- J11** H. Mashayekhi, T. Khalafbeigi, J. Habibi, S. Voulgaris, M. van Steen. GDCluster: A General Decentralized Clustering Algorithm. *IEEE Transactions on Knowledge and Data Engineering*, 2015
- J10** S. Yousaf, R. Bakhshi, M. van Steen, S. Voulgaris, J. L. Kelley. Exploring Design Trade-offs Of A Distributed Algorithm For Cosmic Ray Event Detection. *IOP Journal of Instrumentation*, vol. 8, Mar 2013
- J09** H. Mashayekhi, J. Habibi, S. Voulgaris, M. van Steen. GoSCAN: Decentralized scalable data clustering. *Springer Computing*, 2012
- J08** M. van Steen, G. Pierre, S. Voulgaris. Challenges in very large distributed systems. *Springer Journal of Internet Services and Applications*, vol. 3(1), 2012
- J07** P. Felber, A.-M. Kermarrec, L. Leonini, É. Rivière, S. Voulgaris. PULP: an Adaptive Gossip-Based Dissemination Protocol for Multi-Source Message Streams. *Springer Peer-to-Peer Networking and Applications*, vol. 5(1):74–91, 2011
- J06** É. Rivière, S. Voulgaris. Gossip-based Networking for Internet-Scale Distributed Systems. *Springer Lecture Notes in Business Information Processing*, vol. 78(8):253–284, 2011
- J05** R. Friedman, D. Gavidia, L. Rodrigues, A. Carneiro Viana, S. Voulgaris. Gossiping on MANETs: the Beauty and the Beast. *ACM SIGOPS Operating Systems Review*, vol. 41(5):67–74, Oct 2007
- J04** M. Jelasity, S. Voulgaris, R. Guerraoui, A.-M. Kermarrec, M. van Steen. Gossip-based Peer Sampling. *ACM Transactions on Computer Systems*, vol. 25(3):8, Aug 2007
- J03** S. Voulgaris, M. van Steen, K. Iwanicki. Proactive gossip-based management of semantic overlay networks. *Wiley Concurrency and Computation: Practice & Experience*, vol. 19(17):2299–2311, Dec 2007
- J02** S. Voulgaris, D. Gavidia, M. van Steen. CYCLON: Inexpensive Membership Management for Unstructured P2P Overlays. *Springer Journal of Network and Systems Management*, vol. 13(2):197–217, Jun 2005
- J01** S. Voulgaris, M. van Steen, A. Baggio, G. Ballintijn. Transparent Data Relocation in Highly Available Distributed Systems. *Studia Informatica Universalis*, vol. 3(1):1–18, 2004

**Conferences** **Conferences, in reverse chronological order**

- C42** Y. Thomas, N. Fotiou, I. Pittaras, G. Xylomenos, S. Voulgaris, G. Polyzos. Peer Clustering for the InterPlanetary File System. 2nd ACM SIGCOMM Workshop on Future of Internet Routing & Addressing (FIRA 2023), New York, NY, USA, Sep 10, 2023
- C41** A. Antonov, S. Voulgaris. SecureCyclon: Dependable Peer Sampling. 2nd IEEE International Conference on Distributed Computing Systems (ICDCS 2023), Hong Kong, China, Jul 18-21, 2023
- C40** E. Kolyvas, S. Voulgaris. CougaR: Fast and Eclipse-Resilient Dissemination for Blockchain Networks. ACM International Conference on Distributed Event-Based Systems (DEBS 2022), Copenhagen, Denmark, Jun 27-30, 2022



- C39 N. Fotiou, I. Pittaras, V. A. Siris, S. Voulgaris, G. C. Polyzos. OAuth 2.0 Authorization Using Blockchain-based Tokens. Workshop on Decentralized IoT Systems and Security (DISS 2020), San Diego, CA, USA, Feb 23, 2020
- C38 S. Voulgaris, N. Fotiou, V. A. Siris, G. C. Polyzos, A. Tomaras, S. Karachontzitis. Hierarchical Blockchain Topologies for Quality Control in Food Supply Chains. 29th European Conference on Networks and Communications (EUCNC 2020), Dubrovnik, Croatia, Jun 15-18, 2020
- C37 V. A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G. C. Polyzos. Trusted D2D-based IoT Resource Access using Smart Contracts. 20th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WOWMOM 2019), Washington, DC, USA, Jun 09-12, 2019
- C36 N. Fotiou, I. Pittaras, V. A. Siris, S. Voulgaris, G. C. Polyzos. Secure IoT Access at Scale using Blockchains and Smart Contracts. 8th IEEE Internet of Things: Smart Objects and Services (IOT-SOS 2019), Washington, DC, USA, Jun 10-12, 2019
- C35 V. A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G. C. Polyzos. IoT Resource Access utilizing Blockchains and Trusted Execution Environments. Global IoT Summit (GloTS 2019), Aarhus, Denmark, Jun 17-21, 2019
- C34 V. A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G. C. Polyzos. OAuth 2.0 meets Blockchain for Authorization in Constrained IoT Environments. 5th IEEE World Forum on Internet of Things (WF-IoT 2019), Limerick, Ireland, Apr 15-18, 2019
- C33 V. A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G. C. Polyzos. Interledger Smart Contracts for Decentralized Authorization to Constrained Things. 2nd Workshop on Cryptocurrencies and Blockchains for Distributed Systems (CRYBLOCK 2019), Paris, France, Apr 29, 2019
- C32 N. Fotiou, V. A. Siris, S. Voulgaris, G. C. Polyzos, D. Lagutin. Bridging the Cyber and Physical Worlds using Blockchains and Smart Contracts. Workshop on Decentralized IoT Systems and Security (DISS 2019), San Diego, CA, USA, Feb 24, 2019
- C31 M. Barbosa, S. Ben Mokhtar, P. Felber, F. Maia, M. Matos, R. Oliveira, E. Rivière, V. Schiavoni, S. Voulgaris. SAFETHINGS: Data Security by Design in the IoT. 13th European Dependable Computing Conference (EDCC 2017), Geneva, Switzerland, Sep 04-08, 2017
- C30 D. Frey, M. X. Makkes, P.-L. Roman, F. Taiani, S. Voulgaris. Bringing secure Bitcoin transactions to your smartphone. 15th ACM/IFIP/USENIX International Workshop on Adaptive and Reflective Middleware (ARM 2016), p. 3:1–3:6, Trento, Italy, Dec 13, 2016
- C29 P. Rutgers, C. Martella, S. Voulgaris, P. Boncz. Powerful and Efficient Bulk Shortest-Path Queries: Cypher language extension & Giraph implementation. Graph Data-management Experiences & Systems (GRADES 2016), Oracle Headquarters, Redwood Shores, CA, USA
- C28 P. Moura, F. Kon, S. Voulgaris, M. van Steen. Dynamic Resource Allocation Using Performance Forecasting. 14th ACM/IFIP/USENIX International Conference on High Performance Computing & Simulation (HPCS 2016), Innsbruck, Austria, Jun 18-22, 2016
- C27 P. Moura, F. Kon, S. Voulgaris, M. van Steen. Using Performance Forecasting to Accelerate Elasticity. 2nd Springer Adaptive Resource Management and Scheduling for Cloud Computing (ARMS-CC 2015), p. 17–31, Donostia-San Sebastián, Spain
- C26 N. Vladimir Bozdog, S. Voulgaris, H. Bal, A. van Halteren. PeerMatcher: Decentralized Partnership Formation. 9th IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2015), Cambridge, MA, USA, Sep 21-25, 2015

- C25** A. Galeos, P. Gryllos, N. Leventis, K. Mavrikis, S. Voulgaris. DEBS Grand Challenge: Pimp my Taxi Ride. 9th ACM International Conference on Distributed Event-Based Systems (DEBS 2015), p. 318–319, Oslo, Norway, Jun 29 - Jul 03, 2015 (Winners of the DEBS Grand Challenge 2015!)
- C24** J. Urbani, A. Margara, C. Jacobs, S. Voulgaris, H. Bal. AJIRA: A Lightweight Distributed Middleware for MapReduce and Stream Processing. 34th IEEE International Conference on Distributed Computing Systems (ICDCS 2014), p. 545–554, Madrid, Spain, Jun 30 - Jul 03, 2014
- C23** S. Voulgaris, M. van Steen. VICINITY: A Pinch of Randomness Brings out the Structure. 14th ACM/IFIP/USENIX International Middleware Conference (Middleware 2013), p. 21–40, Beijing, China, Dec 09-13, 2013
- C22** A.-M. Oprescu, S. Voulgaris, H. Leahu. Strategies for Generating and Evaluating Large-Scale Powerlaw-distributed P2P Overlays. 13th IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS 2013), p. , Florence, Italy, Jun 03-05, 2013
- C21** V. Setty, M. van Steen, R. Vitenberg, S. Voulgaris. PolderCast: Fast, Robust, and Scalable Architecture for P2P Topic-based Pub/Sub. 13th ACM/IFIP/USENIX International Middleware Conference (Middleware 2012), p. , Montreal, Canada, Dec 03-07, 2012
- C20** S. Voulgaris, A. Harwood. BooSTER: Broadcast Stream Transmission Epidemic Repair. 12th IEEE International Conference on Peer-to-Peer Computing (P2P 2012), p. , Tarragona, Spain, Sep 03-05, 2012
- C19** A. Gaba, S. Voulgaris, K. Iwanicki, M. van Steen. Revisiting Gossip-based Ad-Hoc Routing. 6th IEEE International Workshop on Wireless Mesh and Ad Hoc Networks (WiMAN 2012), p. , Munich, Germany, Jul 30, 2012
- C18** A. Harwood, S. Voulgaris, M. van Steen. Cooperative Repair of Wireless Broadcasts. 11th IFIP International Conference on Distributed Applications and Interoperable Systems (DAIS 2011), p. 243-248, Reykjavik, Iceland, Jun 27-30, 2011
- C17** M. Dobson, S. Voulgaris, M. van Steen. Merging Ultra-low Duty Cycle Networks. 41st IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2011), p. 538–549, Hong Kong, China, Jun 27-30, 2011
- C16** M. Dobson, S. Voulgaris, M. van Steen. Network-level Synchronization in Decentralized Social Ad-Hoc Networks. 5th International Conference on Pervasive Computing and Applications (ICPCA 2010), Maribor, Slovenia, Dec 01-03, 2010
- C15** A. Gaba, S. Voulgaris, M. van Steen. Towards Congestion-Aware All-to-All Information Dissemination in Mobile Ad-Hoc Networks. IEEE GLOBECOM Workshop on Ubiquitous Computing and Networks (UbiCoNet 2010), Miami, FL, USA, Dec 10, 2010
- C14** A. Gaba, S. Voulgaris, M. van Steen. Group Monitoring in Mobile Ad-Hoc Networks. 3rd International Conference on e-Democracy (eDemocracy 2009), p. 441–451, Athens, Greece, Sep 23-25, 2009
- C13** S. Voulgaris, M. van Steen. Hybrid Dissemination: Adding Determinism to Probabilistic Multicasting in Large-Scale P2P Systems. 8th ACM/IFIP/USENIX International Middleware Conference (Middleware 2007), p. 389–409, Newport Beach, CA, USA, Nov 26-30, 2007
- C12** F. Bonnet, F. Tronel, S. Voulgaris. Performance Analysis of Cyclon, an Inexpensive Membership Management for Unstructured P2P Overlays. 20th International Symposium on Distributed Computing (DISC 2006), p. 560–562, Stockholm, Sweden, Sep 18-20, 2006
- C11** K. Iwanicki, M. van Steen, S. Voulgaris. Gossip-Based Clock Synchronization for Large Decentralized Systems. 2nd IEEE International Workshop on Self-Managed Networks, Systems & Services (SelfMan 2006), p. 28–42, Dublin, Ireland, Jun 16, 2006



- C10** S. Voulgaris, É. Rivière, A.-M. Kermarrec, M. van Steen. Sub-2-Sub: Self-Organizing Content-Based Publish Subscribe for Dynamic Large Scale Collaborative Networks. 5th International Workshop on Peer-to-Peer Systems (IPTPS 2006), Santa Barbara, CA, USA, Feb 27-28, 2006
- C09** D. Gavidia, S. Voulgaris, M. van Steen. A Gossip-based Distributed News Service for Wireless Mesh Networks. 3rd IFIP International Conference on Wireless On-demand Network Systems and Services (WONS 2006), p. 59–67, Les Ménuires, France, Jan 18-20, 2006
- C08** S. Voulgaris, M. van Steen. Epidemic-style Management of Semantic Overlays for Content-Based Searching. European Conference on Parallel and Distributed Computing (EuroPar 2005), p. 1143–1152, Lisbon, Portugal, Aug 31 - Sep 02, 2005
- C07** M. van Steen, S. Voulgaris, E. Ogston, F. Brazier. Self-made Systems. Self-Star Properties in Complex Information Systems (SelfStar 2004), Bertinoro, Italy, May 31 - Jun 02, 2004
- C06** S. Voulgaris, A.-M. Kermarrec, L. Massoulié, M. van Steen. Exploiting Semantic Proximity in Peer-to-Peer Content Searching. 10th IEEE International Workshop on Future Trends in Distributed Computing Systems (FTDCS 2004), p. 238–243, Suzhu, China, May 26-28, 2004
- C05** S. Voulgaris, M. van Steen. An Epidemic Protocol for Managing Routing Tables in very large Peer-to-Peer Networks. 14th IFIP/IEEE Distributed Systems, Operations and Management (DSOM 2003), p. 41–54, Heidelberg, Germany, Oct 20-22, 2003
- C04** S. Voulgaris, M. Jelasity, M. van Steen. A Robust and Scalable Peer-to-Peer Gossiping Protocol. 2nd International Workshop on Agents and Peer-to-Peer Computing (AP2PC 2003), Melbourne, Australia, Jul 14, 2003
- C03** S. Voulgaris, M. van Steen, A. Baggio, G. Ballintijn. Transparent Data Relocation in Highly Available Distributed Systems. 6th International Conference On Principles Of Distributed Systems (OPODIS 2002), p. 9–16, Reims, France, Dec 11-13, 2002
- C02** S. Voulgaris, M. van Steen, A. Baggio, G. Ballintijn. Transparent Server Shutdown in a Wide-Area Location Service. Advanced School of Computing and Imaging (ASCI 2002), Lochem, The Netherlands, Jun 19-21, 2002
- C01** D. Nikolos, H. Vergos, A. Vazaios, S. Voulgaris. Yield - Performance Tradeoffs for VLSI Processors with Partially Good Two-Level On-Chip Caches. IEEE Workshop on Defect and Fault-Tolerance in VLSI Systems (DFT 1996), p. 41–54, Boston, MA, USA, Nov 06-08, 1996

## Teaching

- 2023–now** Μεθοδολογία της Έρευνας, Athens University of Economics and Business (graduate course) (×1 year)
- 2020–now** Blockchains and Smart Contracts, Athens University of Economics and Business (graduate course) (×4 years)
- 2018–now** Οργάνωση Συστημάτων Υπολογιστών, Athens University of Economics and Business (×6 years)
- 2018–now** Αρχιτεκτονική Υπολογιστών, Athens University of Economics and Business (×6 years)
- 2019** High-Performance Scalable Systems, Athens University of Economics and Business (graduate course) (×1 year)
- 2015–2017** Τεχνολογία και Προγραμματισμός Υπολογιστών, University of Patras (×3 years)

- 2015–2017 Προχωρημένα Θέματα σε Κατανεμημένα Συστήματα, University of Patras (graduate course) (×3 years)
- 2015–2017 Εργαστήριο Λειτουργικών Συστημάτων, University of Patras (×3 years)
- 2014–2017 Λειτουργικά Συστήματα, University of Patras (×4 years)
- 2014 Academic English, Vrije Universiteit Amsterdam (×1 year)
- 2013–2014 Computer Networks Practical, Vrije Universiteit Amsterdam (graduate course) (×2 years)
- 2013–2014 Computer Systems, Vrije Universiteit Amsterdam (×2 years)
- 2009–2014 Internet Programming, Vrije Universiteit Amsterdam (graduate course) (×6 years)
- 2009–2012 Pervasive Computing, Vrije Universiteit Amsterdam (×4 years)
- 2009–2012 Graph Theory and Complex Networks (Assistant), Vrije Universiteit Amsterdam (×4 years)
- 2008 Distributed Systems, University of Zurich (×1 year)
- 2008 Computer Networks (Assistant), ETH Zurich (×1 year)
- 2007 Peer-to-Peer and Self-Organizing Networks, ETH Zurich (graduate course) (×1 year)
- 2006–2007 Peer-to-Peer Seminar, ETH Zurich (graduate course) (×2 years)
- 2003–2005 Operating Systems Practical, Vrije Universiteit Amsterdam (graduate course) (×3 years)
- 1999 Computer Architecture (Teaching Assistant), University of Michigan, Ann Arbor (graduate course) (×1 year)

## Reviewing Service

*Journal Reviewing* **I have reviewed papers for the following journals:**

- ACM Computing Surveys (×3)
- ACM Transactions on Computer Systems
- ACM Transactions on Multimedia Computing, Communications, and Applications
- Elsevier Computer Communications
- Elsevier Computer Networks (×3)
- Elsevier Computers and Electrical Engineering
- Elsevier Future Generation Computer Systems (×4)
- Elsevier Information Processing Letters
- Elsevier Journal of Parallel and Distributed Computing (×5)
- Elsevier Journal of Systems and Software
- IEEE Internet Computing
- IEEE Transactions on Knowledge and Data Engineering (×4)
- IEEE Transactions on Mobile Computing
- IEEE Transactions on Network Science and Engineering
- IEEE Transactions on Network and Service Management (×2)
- IEEE Transactions on Parallel and Distributed Systems (×10)
- IEEE/ACM Transactions on Networking
- InderScience International Journal of Advanced Media and Communication
- MDPI Applied Sciences
- MDPI Electronics
- MDPI Symmetry
- SCS Transactions of The Society for Modeling and Simulation International (×2)

- Springer Computing (×5)
- Springer Journal of Internet Services and Applications
- Springer Peer-to-Peer Networking and Applications (×3)
- Springer World Wide Web Journal (×2)
- The VLDB Journal
- Wiley Concurrency and Computation: Practice & Experience (×3)
- Wiley World Wide Web Journal

**Program Committees** I have served in the program committee of the following conferences:

- *HPDC 2002*: High Performance Distributed Computing
- *IPTPS 2005*: Int'l Workshop on Peer-to-Peer Systems
- *SelfMan 2005*: IFIP/IEEE Int'l Workshop on Self-Managed Systems & Services
- *ICDCS 2005*: Int'l Conference on Distributed Computing Systems
- *AP2PC 2005*: Int'l Workshop on Agents and Peer-to-Peer Computing
- *EuroPar 2005*: Int'l European Conference on Parallel and Distributed Computing
- *IS 2006*: IEEE Conference On Intelligent Systems
- *IPDPS 2007*: IEEE Int'l Parallel & Distributed Processing Symposium
- *DSN-DCCS 2007*: Annual IEEE/IFIP Int'l Conference on Dependable Systems and Networks
- *EuroPar 2007*: Int'l European Conference on Parallel and Distributed Computing
- *P2P 2007*: IEEE Int'l Conference on Peer-to-Peer Computing
- *SRDS 2007*: IEEE Int'l Symposium on Reliable Distributed Systems
- *Autonomics 2007*: Int'l Conference on Autonomic Computing and Communication Systems
- *DOA 2007*: Int'l Symposium on Distributed Objects, Middleware, and Applications
- *P2P-NVE 2007*: Int'l Workshop on Peer-to-Peer Network Virtual Environments
- *ICDE 2008*: IEEE Int'l Conference on Data Engineering
- *DPDNS 2008*: IEEE Workshop on Dependable Parallel, Distributed and Network-Centric Systems
- *EuroPar 2008*: Int'l European Conference on Parallel and Distributed Computing
- *SASO 2008*: IEEE Int'l Conference on Self-Adaptive and Self-Organizing Systems
- *P2P-NVE 2008*: Int'l Workshop on Peer-to-Peer Network Virtual Environments
- *HICSS-42 2009*: Hawaii Int'l Conference on System Sciences
- *ICDCS 2009*: Int'l Conference on Distributed Computing Systems
- *EuroPar 2009*: Int'l European Conference on Parallel and Distributed Computing
- *P2P 2009*: Int'l Conference on Peer-to-Peer Computing
- *e-Democracy 2009*: Int'l Conference on e-Democracy
- *AP2PS 2009*: Int'l Conference on Advances in P2P Systems
- *SSS 2009*: Int'l Symposium on Stabilization, Safety, and Security of Distributed Systems
- *ICDCN 2010*: Int'l Conference on Distributed Computing and Networking
- *ICDE 2010*: IEEE Int'l Conference on Data Engineering
- *CDN 2010*: Int'l Workshop on Content Delivery Networks
- *NCA 2010*: IEEE Int'l Symposium on Network Computing and Applications
- *P2P 2010*: IEEE Int'l Conference on Peer-to-Peer Computing

- *QTESO 2010*: Int'l Workshop on Quality in Techno-Social Systems
- *PDP 2011*: Euromicro Int'l Conference on Parallel, Distributed, and Network-Based Processing
- *NCA 2011*: IEEE Int'l Symposium on Network Computing and Applications
- *INMC 2011*: Workshop on Interconnection Networks for Multicore Chips
- *P2P 2011*: IEEE Int'l Conference on Peer-to-Peer Computing
- *SASO 2011*: IEEE Int'l Conference on Self-Adaptive and Self-Organizing Systems
- *IDCS 2011*: Int'l Workshop on Internet and Distributed Computing Systems
- *ICNC 2011*: Int'l Workshop on Internet and Distributed Computing Systems
- *ICDCS 2012*: Int'l Conference on Distributed Computing Systems
- *EuroPar 2012*: Int'l European Conference on Parallel and Distributed Computing
- *P2P 2012*: IEEE Int'l Conference on Peer-to-Peer Computing
- *SASO 2012*: IEEE Int'l Conference on Self-Adaptive and Self-Organizing Systems
- *SRDS 2012*: IEEE Int'l Symposium on Reliable Distributed Systems
- *DAIS 2013*: Int'l IFIP Conference on Distributed Applications and Interoperable Systems
- *IWAP2PT 2013*: Int'l Workshop on Advances in Peer-to-Peer Technology
- *P2P 2013*: IEEE Int'l Conference on Peer-to-Peer Computing
- *BWCCA 2013*: Int'l Conference on Broadband and Wireless Computing, Communication and Applications
- *ASCI OPEN 2013*: Annual Conference of the Advanced School for Computing and Imaging
- *Middleware 2013*: Int'l Middleware Conference
- *OPODIS 2013*: Int'l Conference On Principles Of Distributed Systems
- *ANT 2014*: Int'l Conference on Ambient Systems, Networks and Technologies
- *DAIS 2014*: Int'l IFIP Conference on Distributed Applications and Interoperable Systems
- *SIGMOD RDSS 2014*: Int'l Workshop on Reliable Data Services and Systems
- *ICDCS 2014*: Int'l Conference on Distributed Computing Systems
- *P2P 2015*: IEEE Peer-to-Peer Conference
- *DAIS 2015*: Int'l IFIP Conference on Distributed Applications and Interoperable Systems
- *ICPADS 2015*: IEEE Int'l Conference on Parallel and Distributed Systems
- *DAIS 2016*: Int'l IFIP Conference on Distributed Applications and Interoperable Systems
- *DEBS 2016*: ACM Int'l Conference on Distributed and Event-Based Systems
- *ALGO CLOUD 2016*: Int'l Workshop on Algorithmic Aspects of Cloud Computing
- *OPODIS 2016*: Int'l Conference On Principles Of Distributed Systems
- *DEBS 2017*: ACM Int'l Conference on Distributed and Event-Based Systems
- *DAIS 2017*: Int'l IFIP Conference on Distributed Applications and Interoperable Systems
- *ICCCN 2017*: Int'l Conference on Computer Communications and Networks
- *OPODIS 2017*: Int'l Conference On Principles Of Distributed Systems
- *Middleware 2018*: Int'l Middleware Conference

## — Languages

- Greek (native speaker)
- English (very fluent)
- French (fluent)

- Dutch (basic communication)
- Spanish (basic communication)