

# Fidan Mehmeti

## Curriculum Vitae

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Born on 08/21/1985, Presevo, Serbia

Citizenship: Republic of Serbia



## Research interests

- **Optimal resource management and control in wireless networks**
  - 5G networks (Radio access network and core network)
  - Mobility management
  - 6G networks
  - Energy-efficient wireless networks
  - Cognitive radio networks
  - Heterogeneous networks and mobile data offloading
- **In-network computing**
  - Mobile edge computing
- **Software-defined networks**
  - RAN with centralized controller (SD-RAN, O-RAN)
  - Network security in SDNs
- **Applying machine learning in networking**
  - Video analytics
  - Channel condition predictions
- **Analytic tools**
  - Stochastic processes
  - Queueing theory
  - Optimization theory

## Education

- Nov 2011–Apr 2015 **PhD Studies**, *Telecom Paris/Institute EURECOM*, Paris/Sophia Antipolis, France.
- 2006–2009 **Master of Science in Telecommunications**, *University of Prishtina*, Kosovo, GPA – 9.73/10.
- 2003–2006 **Bachelor of Electrical Engineering**, *University of Prishtina*, Kosovo, GPA – 9.94/10.

## PhD Thesis

Title *Performance Analysis and Optimization of Wireless Access in Cognitive and Heterogeneous Networks*

Supervisor Thrasyvoulos Spyropoulos (Institute EURECOM)

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## Experience

- Sep 2021- **Senior Researcher and Lecturer**, CHAIR OF COMMUNICATION NETWORKS, Technical University of Munich, Germany.  
6G Networks, Digital Twin, SD-RAN, Mobility management, Teaching: Data Networking (Master level course), Communication Networks Modeling and Optimization (Master level course)
- Feb 2018-Aug 2021 **Postdoctoral Scholar**, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, The Pennsylvania State University, USA.  
5G Networks, Mobile edge computing, Video analytics, Network security in SDN
- Nov 2016-Oct 2017 **Postdoctoral Research Scholar**, DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING, North Carolina State University, USA.  
Stochastic processes, Queueing theory, Mobile cloud computing, Spectrum sensing
- Sep 2015–Aug 2016 **Postdoctoral fellow**, DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING, University of Waterloo, Canada.  
Performance modeling and analysis of wireless networks, Heterogeneous networks, 5G
- Nov 2011–Apr 2015 **Research and Teaching Assistant, Mobile Communications Department, EURECOM**, *Sophia Antipolis*, France, Course: “Network Modelling”, Master Program.  
Stochastic Processes, Markov chains, Queueing theory, Complex Networks.
- Aug 2011–Sep 2011 **Junior Researcher**, POSITIONING AND WIRELESS TECHNOLOGY CENTER, Nanyang Technological University, Singapore.  
Robust telemetry design for acoustic channels
- Oct 2008–Sep 2011 **Teaching Assistant**, FACULTY OF ELECTRICAL AND COMPUTER ENGINEERING, University of Prishtina, Kosovo.  
Electronics, Analog electronics, Digital circuits, Microelectronics, Optoelectronics, Electroacoustics, Electronic components
- Aug 2010–Jul 2011 **Project Coordinator**, UNIVERSITY OF PRISHTINA, Kosovo.  
Enhancing Telecommunication Education in Kosovo
- Feb 2008 **Internship**, TELECOMMUNICATIONS RESEARCH CENTER, Vienna, Austria.  
Channel tracking in VDSL

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## Projects

- Aug 2022– **“6G-ANNA: Sustainability, security, trustworthiness, resilience, and digital twin (SSTRD)”**, *financed by the Federal Ministry of Education and Research of Germany (BMBF)*.  
I wrote the project proposal and I am leading the project independently, including mentoring the PhD student Valentin Haider. The main contributions so far are a vision paper on 6G architecture [4] (in the publications list), performance improvements in terms of delay fairness introduced by using SD-RAN [25], providing admission control policies for URLLC traffic with computation requirements [29]. Providing a proportionally fair resource allocation policy in an SD-RAN-led network is the focus of [31], whereas in [32] we provide the maximum achievable sum rate in such a network. Another type of fairness, known as max-min fair allocation, was considered in [36]. Finally, we designed  $\alpha$ -fair allocation policies for vehicular users in [34].

- Sep 2021– **“6G-Life: Digital transformation and sovereignty of the future communication networks”**, financed by the Federal Ministry of Education and Research of Germany (BMBF).  
 In this project, in which I do project management as well, the main contributions are a new approach in allocating network resources in 5G which preserves the low variability of the data rate of users with full utilization of network resources simultaneously [5]. Other contributions are in the area of SDNs, where I mentor the PhD student Nicolai Kroeger, in which we investigated the performance of P4 devices both in terms of the first moment of delay [6],[35] and of the entire distribution [38].
- Sep 2021– **“6G Future Lab Bavaria”**, financed by the Bavarian State Ministry for Economic Affairs, Regional Development and Energy.  
 In this project, mentoring the PhD student Anna Prado, we looked at optimizing various aspects of mobility management in 5G comparing to traditional 3GPP benchmarks. Such contributions are [8], [27], [33], [37], which include minimizing the signaling, providing different types of fairness among users, and guaranteeing a given level of service which should not be violated. Other contributions were in modeling the energy consumption of IoT devices [28] and energy-efficient max-min fair resource allocation in wireless networks [39].
- Feb 2018–Aug 2021 **“5G network resource allocation”**, financed by the Leonhard Chair at Penn State University.  
 I led the research in this project independently. The main contributions are performance improvements provided in 5G across different metrics of interest with the corresponding reallocation of unused resources to the same users who were previously guaranteed a consistent data rate [15], [56] (in the publications list). Allocating resources efficiently in the context of live video streaming that improves the QoE of mobile users is the focus of [45], whereas resource allocation in the general context is considered in [46]. Another thread in this project was to propose admission control policies for the three types of services: eMBB [55], URLLC [47], and mMTC [48].
- Aug 2019–Aug 2021 **“Energy-Aware and QoE-Aware Video Streaming on Mobile Devices”**, financed by National Science Foundation (NSF).  
 I worked with Prof. La Porta and mentored the graduate student Kristina Wheatman on optimizing video streaming performance of mobile users, in which we consider the competition between the users for the network resources, taking into account the energy consumption of mobile users, and proposing different QoE-aware algorithms [11], [26], [52].
- Feb 2018–Aug 2021 **“Cyber Security Collaborative Research Alliance (CS-CRA)”**, financed by US Army Research Lab.  
 I worked with Prof. La Porta and two other professors from Penn State University, Prof. Patrick McDaniel and Prof. Trent Jaeger, and mentored two Master students Quinn Burke and Rahul George on using multi-level security in software defined networks [13].
- Feb 2018–Dec 2019 **“The International Technology Alliance in Distributed Analytics and Information Sciences (DAIS-ITA)”**, financed by US Army Research Lab.  
 I worked with Prof. La Porta, Prof. Sebastian Stein from University of Southampton (UK), and Dr. Geeth De Mel from IBM UK, and mentored graduate students Vajiheh Farhadi and Caroline Rublein on algorithms for resource allocation in mobile edge computing settings with the goal to maximize the rate of served requests [17], [57], and to maximize the total utility of served requests in a static [54] and a dynamic setup [40], [50].

- Feb 2018–Aug 2019 **“The Network Science Collaborative Technology Alliance (NS-CTA)”**, financed by US Army Research Lab.  
I worked with Prof. La Porta and Dr. Kevin Chen (a researcher from the US Army Research Lab) and mentored graduate students N. Felemeban and K. Wheatman on distributed processing models, optimal resource allocation and heuristics for performing image and video analytics at the mobile edge. Goals included processing images and videos stored on mobile devices with the aid of network-based GPUs to minimize time to label all images [18], to send the images with the object of interest as fast as possible [14], [53], identify objects in images stored on mobile devices that have not been trained for [9], [51], and locating actions within stored videos [12].
- Nov 2016–Oct 2017 **“Exploring Theoretical Foundation of Mobile Cloud: From One-Hop Neighbors to the Internet”**, financed by National Science Foundation (NSF).
- Apr 2013–Mar 2015 **“WTFOM: Wireless Traffic Flow Optimization for Multicom”**, financed by Intel Mobile Communications, Sophia Antipolis, France.  
We proposed theoretical models to analyze the process of offloading data from cellular to WiFi networks, and to optimize the performance for different metrics of interest [21], [22], [60], [61].
- Nov 2011–Mar 2013 **“LICORNE: Leveraging Insurance for services providers cohabitation over Cognitive Radio Networks”**, financed by French National Research Agency (ANR).  
The focus was on performance modeling, analysis, comparison of different modes and optimization of cognitive radio networks [20], [59], [62], [63].
- Aug 2011–Sep 2011 **“Robust Telemetry Design for Acoustic Channels”**, financed by Agency for Science, Technology and Research (A\*STAR), Singapore.

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## Teaching

- Winter Semester 2023/24 **Technical University of Munich, Data Networking**, Master level course, Lecturer.  
I am teaching half of the course, and the other half is taught by Prof. Kellerer.
- Summer Semester 2023 **Technical University of Munich, Communication Networks Modeling and Optimization**, Master level course, Lecturer.  
I introduced the course for the first time in front of the Chair of Communication Networks.
- Winter Semester 2022/23 **Technical University of Munich, Data Networking**, Master level course, Lecturer.  
I taught half of the course, and the other half was taught by Prof. Kellerer.
- Winter semester 2012/13 **Institute EURECOM, Network modeling**, Master level course.  
I was a teaching assistant for this course.
- Winter semester 2011/12 **Institute EURECOM, Network modeling**, Master level course.  
I was a teaching assistant for this course.
- 2008-2011 **University of Prishtina, Electronics, Analog electronics, Digital circuits, Micro-electronics, Optoelectronics, Electroacoustics, Electronic components**.  
I was a teaching assistant for these courses but I also gave lectures in some of them.

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## Students mentored

- Endri Goshi **Technical University of Munich**.  
Mentoring the PhD student on characterizing the mMTC traffic when traversing from the user through Radio Access Network all the way to the Core Network
- Serkut Ayvasik **Technical University of Munich**.  
Mentored the PhD student in predicting the Channel State Information in an indoor environment using depth images, resulting in an ACM SIGMETRICS paper

- Anna Prado **Technical University of Munich.**  
Mentored the PhD on mobility management in 5G cellular networks, resulting in an IEEE JSAC and IEEE WoWMoM paper among others
- Nicolai Kroeger **Technical University of Munich.**  
Mentored the PhD student on performance analysis of P4 forwarding devices in an SDN, resulting in a Computer Communications journal paper, and an MSWiM and another ITC paper
- Arled Papa **Technical University of Munich.**  
Mentored the PhD student on providing different QoS metrics in an SD-RAN environment, resulting in an IEEE Transactions on Network Service and Management paper and another conference paper
- Valentin Haider **Technical University of Munich.**  
Mentored the Master and then later the PhD student on fair resource allocation for vehicular users with URLLC traffic, resulting in a conference paper and a journal submission
- Alba Jano **Technical University of Munich.**  
Mentored the PhD student on modeling the energy consumption and providing energy-efficient communication of IoT devices, resulting in two conference papers
- Atila Alpaya Nalcaci **Technical University of Munich, Ongoing.**  
Mentoring the Master student on optimizing the positional accuracy for maritime positioning systems
- Franziska Stoeckeler **Technical University of Munich.**  
Co-supervised the Master student together with Anna Prado on proportionally-fair mobility management, resulting in a conference paper
- Dennis Goelitz **Technical University of Munich.**  
Co-supervised the Master student together with Anna Prado on mobility management with dual connectivity, resulting in a conference paper
- Vajiheh Farhadi **Pennsylvania State University.**  
Mentored on resource allocation for edge computing, resulting in an IEEE INFOCOM and an IEEE/ACM Transactions on Networking paper
- Caroline Rublein **Pennsylvania State University.**  
Mentored on algorithms for resource allocation and task assignment in mobile edge computing, resulting in two conference papers and one journal submission
- Noor Felemban **Pennsylvania State University.**  
Mentored on performance modeling and analysis of image retrieval and search using machine learning in mobile networks, resulting in two IEEE Transactions on Mobile Computing papers, one IEEE/ACM Transactions on Networking paper, and two conference papers
- Kristina Wheatman **Pennsylvania State University.**  
Mentored on resource allocation for crowdsourced image processing in an edge computing setup, and video streaming on mobile devices with competing users, resulting in an IEEE Transactions on Mobile Computing paper, another journal paper, and three conference papers
- Quinn Burke **Pennsylvania State University.**  
Mentored the Master student on multilevel network security modeling and optimization, resulting in an IEEE Transactions on Network Service and Management paper
- Rahul George **Pennsylvania State University.**  
Mentored the Master student on multilevel network security modeling and optimization, resulting in an IEEE Transactions on Network Service and Management paper

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## Publications

\* indicates the student mentored by me

### Journals

- 1 **Group of authors**, *A Secure and Resilient 6G Architecture Vision of the German Flagship Project 6G-ANNA*, IEEE Access, 2023.  
Accepted, to appear
- 2 **Fidan Mehmeti, Thomas F. La Porta, Wolfgang Kellerer**, *Efficient Resource Allocation with Provisioning Constrained Rate Variability in Cellular Networks*, IEEE Transactions on Mobile Computing, 2023.  
Accepted, to appear
- 3 **Nicolai Kroeger\***, **Fidan Mehmeti, Hasanin Harkous, Wolfgang Kellerer**, *Performance Analysis of General P4 Forwarding Devices with Controller Feedback: Single- and Multi-Data Plane Cases*, Computer Communications, vol. 209, 2023.
- 4 **Arled Papa\***, **Polina Kutsevol, Fidan Mehmeti, Wolfgang Kellerer**, *Delphi: Computing the Maximum Achievable Throughput in SD-RAN Environments*, IEEE Transactions on Network and Service Management, 2023.  
Accepted, to appear
- 5 **Anna Prado\***, **Franziska Stoeckeler, Fidan Mehmeti, Patrick Kraemer, Wolfgang Kellerer**, *Enabling Proportionally-Fair Mobility Management with Reinforcement Learning in 5G Networks*, IEEE Journal on Selected Areas in Communications, vol. 41, no. 6, 2023.
- 6 **N. Felemban\***, **Fidan Mehmeti, T. La Porta, H. Kwon**, *EDIR: Efficient Distributed Image Retrieval of Novel Objects in Mobile Networks*, IEEE Transactions on Mobile Computing, 2023.  
Accepted, to appear
- 7 **Serkut Ayvasik\***, **Fidan Mehmeti, Edwin Babaian, Wolfgang Kellerer**, *PEACH: Proactive and Environment Aware Channel State Information Prediction with Depth Images*, Proceedings of the ACM on Measurement and Analysis of Computing Systems (POMACS), vol. 7, no. 1, 2023.
- 8 **K. Wheatman\***, **Fidan Mehmeti, M. Mahon, T. F. La Porta, G. Cao**, *EQMS: An Improved Energy-Aware and QoE-Aware Video Streaming Policy across Multiple Competitive Mobile Devices*, Wireless Networks, vol. 29, 2023.
- 9 **N. Felemban\***, **Fidan Mehmeti, T. La Porta**, *VidQ: Video Query Using Optimized Audio-Visual Processing*, IEEE/ACM Transactions on Networking, vol. 31, no. 3, 2023.
- 10 **Q. Burke\***, **Fidan Mehmeti, R George\*, T. Jaeger, T. La Porta, P. McDaniel**, *Dynamically Enforcing Multilevel Security in Software-Defined Networks*, IEEE Transactions on Network and Service Management, vol. 19, no.3, 2022.
- 11 **K. Wheatman\***, **Fidan Mehmeti, M. Mahon, H. Qiu, K. S. Chan, T. F. La Porta**, *Optimal Resource Allocation for Crowdsourced Image Processing*, IEEE Transactions on Mobile Computing, vol. 22, no. 10, 2022.
- 12 **Fidan Mehmeti, Thomas F. La Porta**, *Reducing the Cost of Consistency: Performance Improvements in Next Generation Cellular Networks with Optimal Resource Reallocation*, IEEE Transactions on Mobile Computing, vol.21, no.7, 2022.

- 13 **Fidan Mehmeti, N. Felemban, Z. Lu, K. Wheatman, G. Cirincione, T. F. La Porta**, *Quality of Information in Gathering Information via Video Analytics for Military Networks*, IEEE Communications Magazine, vol.59, no.2, 2021.
- 14 **V. Farhadi\*, Fidan Mehmeti, T. He, T. La Porta, H. Khamfroush, S. Wang, K. Chan, K. Poularakis**, *Service Placement and Request Scheduling for Data-intensive Applications in Edge Clouds*, IEEE/ACM Transactions on Networking, vol.29, no.2, 2021.
- 15 **N. Felemban\*, Fidan Mehmeti, H. Khamfroush, Z. Lu, S. Ralapalli, K. Chan, T. La Porta**, *PicSys: Energy-Efficient Fast Image Search on Distributed Mobile Networks*, IEEE Transactions on Mobile Computing, vol.20, no.4, 2021.
- 16 **Fidan Mehmeti, Catherine Rosenberg**, *How Expensive Is Consistency? Performance Analysis of Consistent Rate Provisioning to Mobile Users in Cellular Networks*, IEEE Transactions on Mobile Computing, vol.18, no.5, 2019.
- 17 **Fidan Mehmeti, Thrasyvoulos Spyropoulos**, *Performance Analysis, Comparison and Optimization of Interweave and Underlay Spectrum Access in Cognitive Radio Networks*, IEEE Transactions on Vehicular Technology, vol.67, no.8, 2018.
- 18 **Fidan Mehmeti, Thrasyvoulos Spyropoulos**, *Performance Modeling, Analysis and Optimization of Delayed Mobile Data Offloading for Mobile Users*, IEEE/ACM Transactions on Networking, vol.25, no.1, 2017.
- 19 **Fidan Mehmeti, Thrasyvoulos Spyropoulos**, *Performance Analysis of Mobile Data Offloading in Heterogeneous Networks*, IEEE Transactions on Mobile Computing, vol.16, no.2, 2017.

#### Conferences

- 20 **S. Kolb, F. Jurosch, N. Kroeger, F. Mehmeti, L. Bernhard, J. Fuchtmann, S. Speidel, W. Kellerer, D. Wilhelm**, *6G in Clinical Applications: Integrating New Network Approaches in Healthcare*, Deutsche Gesellschaft fuer Computer- und Roboterassistierte Chirurgie (CURAC), 2023.
- 21 **Fidan Mehmeti, Wolfgang Kellerer**, *Delay Fairness in 5G Networks with SD-RAN*, Proc. of International Conference on Computer Communications and Networks (ICCCN), 2023.
- 22 **Kristina Sorensen Wheatman\*, Fidan Mehmeti, Mark Mahon, Thomas F. La Porta**, *QoE-Analysis of 5G Network Resource Allocation Schemes for Competitive Multi-User Video Streaming Applications*, Proc. of 97th IEEE Vehicular Technology Conference (IEEE VTC2023-Spring), 2023.
- 23 **Anna Prado\*, Fidan Mehmeti, Wolfgang Kellerer**, *Cost-Efficient Mobility Management in 5G*, IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM), 2023.
- 24 **Alba Jano\*, Pablo Alejandro Garana, Fidan Mehmeti, Carmen Mas Machuca, Wolfgang Kellerer**, *Modeling of IoT Devices Energy Consumption in 5G Networks*, Proc. of IEEE International Conference on Communications (IEEE ICC), 2023.
- 25 **Fidan Mehmeti, Valentin Thomas Haider, Wolfgang Kellerer**, *Admission Control for URLLC Traffic with Computation Requirements in 5G and Beyond*, Proc. of IEEE/IFIP Network Operations and Management Symposium (NOMS), 2023.

- 26 **Serkut Ayvasik\***, **Fidan Mehmeti**, **Edwin Babaians**, **Wolfgang Kellerer**, *PEACH: Proactive and Environment Aware Channel State Information Prediction with Depth Images*, Proc. of ACM Sigmetrics, 2023.
- 27 **Fidan Mehmeti**, **Wolfgang Kellerer**, *Proportionally Fair Resource Allocation in SD-RAN*, Proc. of IEEE Consumer Communications and Networking Conference (IEEE CCNC 2023), 2023, **\*Best Paper Award**.
- 28 **Fidan Mehmeti**, **Arlend Papa**, **Wolfgang Kellerer**, *Maximizing Network Throughput Using SD-RAN*, Proc. of IEEE Consumer Communications and Networking Conference (IEEE CCNC 2023), 2023.
- 29 **Anna Prado\***, **Franziska Stoeckeler**, **Fidan Mehmeti**, **Wolfgang Kellerer**, *Enabling Proportionally Fair Mobility Management in 5G Networks*, Proc. of IEEE Consumer Communications and Networking Conference (IEEE CCNC 2023), 2023.
- 30 **Valentin Thomas Haider\***, **Fidan Mehmeti**, **Ana Cantarero**, **Wolfgang Kellerer**, *Joint alpha-Fair Allocation of RAN and Computing Resources to Vehicular Users with URLLC Traffic*, Proc. of IEEE Consumer Communications and Networking Conference (IEEE CCNC 2023), 2023.
- 31 **Nicolai Kroeger\***, **Fidan Mehmeti**, **Hasanin Harkous**, **Wolfgang Kellerer**, *Performance Analysis of General P4 Forwarding Devices with Controller Feedback*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM), 2022.
- 32 **Fidan Mehmeti**, **Wolfgang Kellerer**, *Max-min Fair Resource Allocation in SD-RAN*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM), 2022.
- 33 **Anna Prado\***, **Dennis Goelitz**, **Fidan Mehmeti**, **Wolfgang Kellerer**, *Proportionally Fair Resource Allocation Considering Geometric Blockage Modeling for Improved Mobility Management in 5G*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM), 2022.
- 34 **Nicolai Kroeger\***, **Hasanin Harkous**, **Fidan Mehmeti**, **Wolfgang Kellerer**, *Looking Beyond the First Moment: Analysis of Packet-related Distributions in P4 Systems with Controller Feedback*, International Teletraffic Congress (ITC34), 2022.
- 35 **Alba Jano\***, **Rakash SivaSiva Ganesan**, **Fidan Mehmeti**, **Serkut Ayvasik**, **Wolfgang Kellerer**, *Energy-Efficient and Radio Resource Control State Aware Resource Allocation with Fairness Guarantees*, Proc. of the 20th International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks (WiOPT), 2022.
- 36 **Caroline Rublein\***, **Fidan Mehmeti**, **Taha Gunes**, **Sebastian Stein**, **Thomas F. La Porta**, *Scalable Resource Allocation Techniques for Edge Computing Systems*, The 31st International Conference on Computer Communications and Networks (ICCCN), 2022.
- 37 **Arlend Papa\***, **Polina Kutsevol**, **Fidan Mehmeti**, **Wolfgang Kellerer**, *Effects of SD-RAN Control Plane Design on User Quality of Service*, Proc. of IEEE International Conference on Network Softwarization (IEEE NETSOFT), 2022.



- 38 **Fidan Mehmeti, Thomas F. La Porta**, *Minimizing Rate Variability with Effective Resource Utilization in 5G Networks*, Proc. of ACM International Symposium on Mobility Management and Wireless Access (ACM MobiWac), 2021, **\*Best Paper Award**.
- 39 **Fidan Mehmeti, Thomas F. La Porta**, *Analyzing a 5G Dataset and Modeling Metrics of Interest*, Proc. of IEEE International Conference on Mobility, Sensing and Networking (IEEE MSN), 2021.
- 40 **Fidan Mehmeti, Thomas F. La Porta**, *Modeling and Analysis of mMTC Traffic in 5G Base Stations*, Proc. of IEEE Consumer Communications and Networking Conference (IEEE CCNC), 2022.
- 41 **Fidan Mehmeti, Thomas F. La Porta**, *Resource Allocation for Improved User Experience with Live Video Streaming in 5G*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM, poster), 2021.
- 42 **Fidan Mehmeti, Thomas F. La Porta**, *Efficient Resource Allocation with Constrained Rate Variability in Cellular Networks*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM, poster), 2021.
- 43 **Fidan Mehmeti, Thomas F. La Porta**, *Admission Control for URLLC Users in 5G Networks*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM), 2021.
- 44 **Fidan Mehmeti, Thomas La Porta**, *Admission Control for mMTC Traffic in 5G Networks*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM, poster), 2021.
- 45 **N. Felemban\*, Fidan Mehmeti, T. La Porta**, *VidQ: Video Query Using Optimized Audio-Visual Processing*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM, poster), 2021.
- 46 **C. Rublein\*, Fidan Mehmeti, M. Towers, S. Stein, T. La Porta**, *Online Resource Allocation in Edge Computing Using Distributed Bidding Approaches*, Proc. of IEEE Conference on Mobile Ad-Hoc and Smart Systems (IEEE MASS), 2021.
- 47 **N. Felemban\*, Fidan Mehmeti, T. La Porta, H. Kwon**, *EDIR: Efficient Distributed Image Retrieval of Novel Objects in Mobile Networks*, Proc. of IEEE Conference on Mobile Ad-Hoc and Smart Systems (IEEE MASS), 2021.
- 48 **K. Wheatman\*, Fidan Mehmeti, M. Mahon, T. La Porta, G. Cao**, *Multi-User Competitive Energy-Aware and QoE-Aware Video Streaming on Mobile Devices*, Proc. of the 16th ACM Symposium on QoS and Security for Wireless and Mobile Networks (Q2SWinet, ACM MSWiM poster), November 16-20, 2020, Virtual Conference.
- 49 **K. Wheatman\*, Fidan Mehmeti, M. Mahon, H. Qiu, K. Chan, T. La Porta**, *Optimal Resource Allocation for Crowdsourced Image Processing*, Proc. of IEEE International Conference on Sensing, Communications, and Networking (IEEE SECON), June 22-25, 2020, Virtual Conference.

- 50 **M. Towers, C. Rublein, Fidan Mehmeti, S. Stein, T. La Porta, G. De Mel,** *Analytical agility at the edge of the network through auction mechanisms*, Proc. SPIE, Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications, April 23, 2020.
- 51 **Fidan Mehmeti, Thomas F. La Porta,** *Admission Control for Consistent Users in Next Generation Cellular Networks*, Proc. of IEEE International Conference on Communications (IEEE ICC), 2019, Shanghai, China.
- 52 **Fidan Mehmeti, Thomas F. La Porta,** *Optimizing 5G Performance by Reallocating Unused Resources*, Proc. of IEEE International Conference on Computer Communications and Networks (IEEE ICCCN), 2019, Valencia, Spain.
- 53 **V. Farhadi\*, Fidan Mehmeti, T. He, T. La Porta, H. Khamfroush, S. Wang, K. Chan,** *Service Placement and Request Scheduling for Data-Intensive Applications in Edge Clouds*, Proc. of IEEE International Conference on Computer Communications (IEEE INFOCOM), 2019, Paris, France.
- 54 **Fidan Mehmeti, Catherine Rosenberg,** *Providing Consistent Rates for Backhauling of Mobile Base Stations in Public Urban Transportation*, Proc. of IEEE International Conference on Communications (IEEE ICC), May 21-25, 2017, Paris, France.
- 55 **Fidan Mehmeti, Thrasyvoulos Spyropoulos,** *Stay or Switch? Analysis and Comparison of Delays in Cognitive Radio Networks with Interweave and Underlay Spectrum Access*, Proc. of ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM, poster), November 13-17, 2016, Malta.
- 56 **Fidan Mehmeti, Thrasyvoulos Spyropoulos,** *Is it Worth to be Patient? Analysis and Optimization of Delayed Mobile Data Offloading*, Proc. of IEEE International Conference on Computer Communications (IEEE INFOCOM), April 26-May 2, 2014, Toronto, Canada.
- 57 **Fidan Mehmeti, Thrasyvoulos Spyropoulos,** *Performance Analysis of On-the-spot Mobile Data Offloading*, Proc. of IEEE Global Telecommunications Conference (IEEE GLOBECOM), December 8-13, 2013, Atlanta, USA.
- 58 **Fidan Mehmeti, Thrasyvoulos Spyropoulos,** *To Scan or Not To Scan: The Effect of Channel Heterogeneity on Optimal Scanning Policies*, Proc. of IEEE International Conference on Sensing, Communications, and Networking (IEEE SECON), June 24-27, 2013, New Orleans, USA.
- 59 **Fidan Mehmeti, Thrasyvoulos Spyropoulos,** *Who Interrupted Me? Analyzing the Effect of PU Activity on Cognitive User Performance*, Proc. of IEEE International Conference on Communications (IEEE ICC), June 9-13, 2013, Budapest, Hungary.

#### Research Reports

- 60 **Fidan Mehmeti, Arled Papa, Wolfgang Kellerer, Thomas F. La Porta,** *Minimizing Rate Variability with Effective Resource Utilization in Cellular Networks*, Technical Report, Technical University of Munich, 2023.
- 61 **Nicolai Kroeger\*, Hasanin Harkous, Fidan Mehmeti, Wolfgang Kellerer,** *Looking Beyond the First Moment: Analysis of Packet-related Distributions in P4 Systems with Controller Feedback*, Technical Report, Technical University of Munich, 2022.

- 62 **Fidan Mehmeti, Thomas F. La Porta**, *Modeling and Analysis of mMTC Traffic in 5G Base Stations*, Technical Report, The Pennsylvania State University, 2021, <https://arxiv.org/abs/2108.00483>.
- 63 **Fidan Mehmeti, Thomas F. La Porta**, *Resource Allocation for Improved User Experience with Live Video Streaming in 5G*, Technical Report, The Pennsylvania State University, 2021, <https://arxiv.org/abs/2012.10219>.
- 64 **Fidan Mehmeti, Catherine Rosenberg**, *Providing consistent rates for back-hauling of mobile base stations in public urban transportation*, Technical Report, University of Waterloo, 2016.
- 65 **Fidan Mehmeti, Thrasylvoulos Spyropoulos**, *Underlay vs. Interweave: Which One is Better?*, Technical Report, RR-14-296, Eurecom, 2014.
- 66 **Fidan Mehmeti, Thrasylvoulos Spyropoulos**, *Optimization of Delayed Mobile Data Offloading*, Technical Report, RR-13-286, Eurecom, 2013.
- 67 **Fidan Mehmeti, Thrasylvoulos Spyropoulos**, *Analysis of Cognitive User Performance Under Generic Primary User Activity*, Technical Report, RR-12-274, Eurecom, 2012.

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## Other Activities

- Reviewer **Journals**, *IEEE Journal on Selected Areas in Communications, IEEE Transactions on Mobile Computing, IEEE/ACM Transactions on Networking, IEEE Transactions on Wireless Communications, IEEE Transactions on Vehicular Technology, IEEE Transactions on Network Science and Engineering, IEEE Communications Letters, ELSEVIER Ad Hoc Networks, IEEE Communications Magazine, Computer Communications, etc.*  
**Conferences**, *IEEE INFOCOM, ACM MobiHoc, IEEE PIMRC, IEEE VTC, ACM CHANTS, ITC, ACM MSWiM.*
- TPC **IEEE Globecom 2017, IEEE VTC 2018, IEEE PIMRC 2020, IEEE SMART-COMP 2023.**
- Committees **Member of the Expert Committee for Hiring new professors at the School of Computation, Information and Technology, Technical University of Munich.**
- Memberships **Member, IEEE.**  
**Member, ACM.**

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## Awards

- 2023 Best Paper Award at IEEE CCNC 2023
- 2021 Best Paper Award at ACM MobiWac 2021
- 2007 A grant for a "One month Study stay" program, financed by Austrian government
- 2006 Distinguished Student – University of Prishtina
- 2000 All-Albanian National Elementary School Math Champion, Durres, Albania

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## Computer skills

- Operating systems Windows, Linux, macOS
- Programming Matlab, C, R

Other Maple, Mathematica, NS2, PSpice, CPLEX, Gurobi

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## Languages

Albanian	<b>Native language</b>
English	<b>Fluent</b>
Serbian	<b>Fluent</b>
French	<b>Advanced</b>
Spanish	<b>Basic</b>
Macedonian	<b>Basic</b>
German	<b>Beginner</b>

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## References

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