

# Marco Savi

Associate Professor

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Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del D.P.R. 445/2000.

## Overview

- Main** - Research on *Computer Networking* and *Cloud Computing*
- Duties** - Research project management
  - Preparation of research project proposals (generation of ~850 k€ in funding)
  - Teaching to BSc, MSc and PhD students (> 500 hours)
- Research** - Routing and Load Balancing in LEO Satellite Networks
- Topics** - Decentralized Function-as-a-Service at the Edge
  - (from more to less recent) - Trustworthy and Distributed Machine-Learning-Based Network Intrusion Detection
  - Network Monitoring with Programmable Data Planes
  - Distributed Learning for Multi-access Edge Computing
  - Resource Allocation in Fog Computing
  - SDN-based Network Orchestration of IP/Optical Layers
  - Resource Optimization in NFV and Service Function Chaining
  - Energy-Efficient Content Caching in Fixed-Mobile Convergent Networks
  - Privacy and Security in Smart Grids
- Research** - Optimization models (linear programming) and algorithms (heuristics)
- Methods** - Network simulation and emulation
  - Queuing theory
  - Signal processing
- Bibliometrics** - h-index: 21 (Google Scholar), 18 (Scopus)
  - i10-index: 46 (Google Scholar), 36 (Scopus)
  - Number of citations: 1961 (Google Scholar), 1374 (Scopus)
- Academic** *Italian Scientific Qualification (ASN):*
- Eligibility** - In Computer Systems, SC: 09/H1, from 07/26 to 07/38 (**Full Professor**)
  - In Computer Science, SC: 01/B1, from 07/26 to 07/38 (**Full Professor**)
  - In Computer Systems, SC: 09/H1, from 06/23 to 06/35 (**Associate Professor**)
  - In Computer Science, SC: 01/B1, from 01/22 to 01/34 (**Associate Professor**)
  - In Telecommunications, SC: 09/F2, from 06/21 to 06/33 (**Associate Professor**)

## Professional Experience

- 10/25-Now **University of Milano-Bicocca**, *Associate Professor (SC: 09/H1)*, Milano, Italy  
*Department:* Department of Informatics, Systems and Communication (DISCo)  
*Laboratory:* Networking Laboratory (NetLab) – Director (from 09/26)
- 10/22-10/25 **University of Milano-Bicocca**, *Assistant Professor (RTD-B, Tenure-Track, SC: 09/H1)*, Milano, Italy  
*Department:* Department of Informatics, Systems and Communication (DISCo)  
*Laboratory:* Real-time Events and Decision Support (REDS) – Deputy Director
- 04/20-10/22 **University of Milano-Bicocca**, *Assistant Professor (RTD-A, Non-Tenured, SC: 09/F2)*, Milano, Italy  
*Department:* Department of Informatics, Systems and Communication (DISCo)  
*Laboratory:* Real-time Events and Decision Support (REDS)  
*Director:* Prof. Fabio Sartori
- 04/18-03/20 **Fondazione Bruno Kessler**, *Expert Researcher (SC: 09/H1)*, Trento, Italy  
*Research Centers:* FBK-ICT (01/20-03/20), FBK CREATE-NET (04/18-12/19)  
*Research Unit:* Robust and Secure Distributed Computing (RiSING)  
*Director:* Prof. Domenico Siracusa
- 11/18  
(2 weeks) **University of Alcalá**, *Visiting Researcher*, Alcalá, Spain  
*Department:* Department of Automatics  
*Host Research Group:* GIST-NetServ  
*Director:* Prof. Juan Antonio Carral  
*Activities:* Starting a new research collaboration on topics related to SDN
- 03/16-03/18 **Fondazione Bruno Kessler**, *Postdoc Researcher (SC: 09/H1)*, Trento, Italy  
*Research Center:* FBK CREATE-NET  
*Research Unit:* Future Networks (FuN)  
*Directors:* Prof. Domenico Siracusa & Prof. Roberto Riggio
- 01/16-03/16 **Politecnico di Milano**, *Postdoc Researcher (SC: 09/F2)*, Milano, Italy  
*Department:* Department of Electronics, Information e Bioengineering (DEIB)  
*Laboratory:* Broadband Optical Networks, Security and Advanced Internet (BONSAI)  
*Director:* Prof. Achille Pattavina
- 02/15-06/15 **University of Bergamo**, *Contract Professor (SC: 09/F2)*, Bergamo, Italy  
*Activities:* Teaching to BSc students
- 08/14-02/15 **University of Melbourne**, *Visiting Researcher*, Melbourne, Australia  
*Department:* Department of Electrical and Electronic Engineering  
*Host Research Center:* Centre for Energy-Efficient Telecommunication (CEET)  
*Director:* Dr. Kerry Hinton  
*Activities:* Research on energy efficiency in access/aggregation networks

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## Education

- 01/13-06/16 **Politecnico di Milano**, *Doctor of Philosophy (PhD)*, in Information Technology (SC: 09/F2), Milano, Italy  
*Dissertation Title*: Overcoming Performance, Cost and Energy Issues in Fixed and Mobile Convergent Networks  
*Supervisor*: Prof. Giacomo Verticale  
*Grade Point*: With merit
- 10/10-12/12 **Politecnico di Milano**, *Master of Science (MSc)*, in Telecommunications Engineering (Networking Area), Milano, Italy  
*Grade Point*: 110/110 (summa cum laude)
- 09/07-07/10 **Politecnico di Milano**, *Bachelor of Science (BSc)*, in Telecommunications Engineering, Milano, Italy  
*Grade Point*: 108/110

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## Teaching Experience

- Teacher **Telecommunication Systems and Services** (Graduate Course, 6 CFU)  
*Academic Years*: 21-22 (50 hours), 22-23 (40 hours), 23-24 (40 hours), 24-25 (40 hours), 25-26 (50 hours)  
*University*: University of Milano-Bicocca, Milano, Italy  
*Role*: Responsible of the course
- Teacher **Networks and Operating Systems** (Undergraduate Course, 8 CFU)  
*Academic Years*: 22-23 (32 hours), 23-24 (52 hours), 24-25 (52 hours), 25-26 (32 hours)  
*University*: University of Milano-Bicocca, Milano, Italy
- Teacher **Distributed Systems** (Undergraduate Course, 8 CFU)  
*Academic Years*: 25-26 (32 hours)  
*University*: University of Milano-Bicocca, Milano, Italy
- Teacher **Expert Systems and Network Architectures for Distributed Wearable Environments** (PhD Course, 2 CFU)  
*Academic Years*: 21-22 (11 hours), 23-24 (12 hours)  
*University*: University of Milano-Bicocca, Milano, Italy  
*Role*: Responsible of the course
- Teacher **Information Systems** (Graduate Course, 6 CFU)  
*Academic Years*: 20-21 (16 hours), 21-22 (16 hours)  
*University*: University of Milano-Bicocca, Milano, Italy
- Teacher **Multimedia Internet Networks** (Undergraduate Course, 6 CFU)  
*Academic Year*: 14-15 (48 hours)  
*University*: University of Bergamo, Bergamo, Italy  
*Role*: Responsible of the course
- Teaching Assistant **Foundations of Computer Science** (Undergraduate Course, 8 CFU)  
*Academic Year*: 22-23 (10 hours)  
*University*: University of Milano-Bicocca, Milano, Italy

- Teaching **Telecommunication Systems and Services** (Graduate Course, 6 CFU)  
 Assistant *Academic Year:* 20-21 (10 hours)  
*University:* University of Milano-Bicocca, Milano, Italy
- Teaching **Databases** (Undergraduate Course, 8 CFU)  
 Assistant *Academic Years:* 19-20 (20 hours), 20-21 (20 hours)  
*University:* University of Milano-Bicocca, Milano, Italy
- Teaching **Multimedia Internet Networks** (Undergraduate Course, 6 CFU)  
 Assistant *Academic Year:* 16-17 (16 hours)  
*University:* University of Bergamo, Bergamo, Italy
- Teaching **Telecommunication Networks** (Undergraduate Course, 9 CFU)  
 Assistant *Academic Year:* 13-14 (24 hours)  
*University:* University of Bergamo, Bergamo, Italy
- Teaching **Networking Software Platforms** (Undergraduate Course, 5 CFU)  
 Assistant *Academic Years:* 12-13 (6 hours), 13-14 (6 hours)  
*University:* Politecnico di Milano, Milano, Italy
- Lab Assistant **Telecommunication Networks and Internet** (Undergraduate Course, 10 CFU)  
*Academic Year:* 13-14 (20 hours)  
*University:* Politecnico di Milano, Milano, Italy

## Roles and Academic Services

- 03/23-Now **Member of the Steering Committee (*Giunta*) of the National Inter-University Consortium for Telecommunications (CNIT)'s Scientific Board**  
*Body description:* The Steering Committee of the CNIT's Scientific Board (*Consiglio Scientifico*) is composed of four elected members of the Scientific Board  
*Role:* Assisting the President in the definition of strategies to strengthen the development of CNIT's scientific activities; involvement in CNIT's strategy definition for VQR 2020-2024 (Evaluation of Quality of Research)
- 10/22-Now **Director of Research Unit at CNIT**  
*Research Unit:* University of Milano-Bicocca, Milano, Italy  
*Additional and Related Role:* Member of the CNIT's Scientific Board
- 12/20-Now **Member of the Italian Academic Board of the PhD in Computer Science**  
*University:* University of Milano-Bicocca, Milano, Italy  
*PhD Cycles:* XXXVII, XXXIX, XL, XLI
- 10/21-Now **Information Engineer**  
*Association:* Order of Engineers of the Province of Milano, Italy  
*Registration number:* 32877
- 01/23-Now **Member of the DISCo's Timetable Commission**  
*University:* University of Milano-Bicocca, Milano, Italy  
*Duty:* Definition of the timetable and rooms for the lessons of the BSc and MSc Degrees offered by the DISCo Department

05/25-Now **Member of the DISCo's Commission for the Quality Assurance of Third Mission Activities**  
*University:* University of Milano-Bicocca, Milano, Italy  
*Duty:* Monitoring of Third Mission activities related to the DISCo Department

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## Research and Innovation Projects

### Responsibilities in Projects

- 03/24-01/26 **WatchEDGE** (Wide-area Agile and Flying Network Arcvitecture for AI-surveillance Processing at the Edge), with *University of Milano-Bicocca*  
*Details:* 3-years focused project of the PNRR RESTART programme  
*Funding agency:* Italian Ministry of University and Research (MUR)  
*Role:* WatchEDGE/A1 Task Leader (project joined through Cascade Call)
- 12/23-02/26 **SHIELDED** (Secure, Trustworthy, and Efficient Federated Learning for Intrusion Detection at the Edge), with *University of Milano-Bicocca*  
*Details:* 2-years PRIN 2022 PNRR project  
*Funding agency:* Italian Ministry of University and Research (MUR)  
*Role:* Responsible of Research Unit and Deputy Project Coordinator
- 01/23-12/27 **ReGAIInS** (Reducing the Gap between Artificial Intelligence and Society), with *University of Milano-Bicocca*  
*Details:* "Excellence Department" project of the DISCo Department  
*Funding agency:* Italian Ministry of University and Research (MUR)  
*Role:* Leader of Objective (i.e., Work Package) 2 (Sustainable AI development) and of Activity (i.e., Task) 3 (Development of architectures for big data analysis) of Objective 2
- 01/19-12/22 **GÉANT GN4-3**, with *Fondazione Bruno Kessler*  
*Details:* 4-years H2020 project  
*Funding agency:* European Commission  
*Role:* Responsible and coordinator of FBK's research activities with respect to Work Package 6-Task 1, as subcontractor of GARR Consortium  
*Deliverables:* Author of D6.3, D6.5 (technical)
- 07/18-06/21 **DECENTER** (Decentralized Technologies for Orchestrated Cloud-to-Edge Intelligence), with *Fondazione Bruno Kessler*  
*Details:* 3-years European/Korean H2020/IITP project  
*Funding agency:* European Commission and Korean Government  
*Role:* Work Package 3 Leader and EU Deputy Project Coordinator  
*Deliverables:* Editor of D3.1 (technical) and of D7.1-8 (ethics requirements), author of D2.1, D3.2 (technical) and D1.2, D1.3 (management)
- 01/18-12/21 **5G Experimentation in the City of Prato (Italy)**, with *Fondazione Bruno Kessler*  
*Details:* 4-years project supported by Italian Ministry of Economic Development (MISE)  
*Role:* Responsible and coordinator of FBK's activities on SDN aspects  
*Reporting:* Writing of the required documentation

## Participation in Projects

- 04/25-Now **Testing of the New Communication Network of an Italian Hospital**, with *University of Milano-Bicocca*  
*Details:* Project funded by a public administration  
*Role:* Contribution to the definition of the functional tests  
*Reporting:* Contribution to the required documentation
- 01/22-07/22 **Assessment of the Communication Network of an Italian Hospital**, with *University of Milano-Bicocca*  
*Details:* Project funded by a public administration  
*Role:* Contribution to the definition of the methodology and to the assessment activity  
*Reporting:* Contribution to the required documentation
- 02/15-01/18 **ACINO** (Application-Centric IP/optical Network Orchestration), with *Fondazione Bruno Kessler*  
*Details:* 3-years H2020 project  
*Funding agency:* European Commission  
*Role:* Research on resource allocation in multi-layer IP/optical networks  
*Deliverables:* Author of D2.2, D3.3, D3.4, D3.5 (technical), of D1.9 (management) and of D6.5 (dissemination)
- 01/13-09/16 **COMBO** (Convergence of Fixed and Mobile Broadband Access/aggregation Networks), with *Politecnico di Milano*  
*Details:* 3-years FP7 project  
*Funding agency:* European Commission  
*Role:* Research on content caching aspects in fixed-mobile convergent networks  
*Deliverables:* Author of D3.1, D4.1 (technical)
- 01/13-12/13 **Feasibility Study of Vectoring DSL Multi-DSLAM and G.Fast**, with *Politecnico di Milano*  
*Details:* Project funded by a private company  
*Role:* Definition and implementation of a model for Multi-DSLAM Vectoring  
*Reporting:* Contribution to the required documentation

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## Grants and Awards

### Research Grants

- 03/24-12/25 **WatchEDGE** Project, funded by Italian Ministry of University and Research under PNRR RESTART's Spoke 8 Cascade Call  
*Grant:* **80 k€** to University of Milano-Bicocca  
*Role:* Team leader and responsible of proposal writing (name: SPRINT) for the University of Milano-Bicocca's Research Unit
- 12/23-11/25 **SHIELDED** Project, funded by Italian Ministry of University and Research under PRIN 2022 PNRR call  
*Grant:* **87 k€** to University of Milano-Bicocca  
*Role:* Team leader and responsible of proposal writing for the University of Milano-Bicocca's Research Unit

- 09/23-09/25 **EDWARD** Project, individual project funded by University of Milano-Bicocca under Fondo di Ateneo Quota Competitiva (FAQC) call  
*Grant: 13.4 k€*  
*Role: Team leader and responsible of proposal writing*
- 07/18-06/21 **DECENTER** Project, funded by the European Commission (H2020)  
*Grant: 650.5 k€* to Fondazione Bruno Kessler  
*Role: Member of the FBK's team (together with Prof. Domenico Siracusa and Mr. Raffaele Giaffreda) leading and coordinating the proposal writing*
- 01/19-12/22 **GN4-3** Project, funded by the European Commission (H2020)  
*Role: Member of the FBK's team (together with Prof. Domenico Siracusa) participating to the proposal writing, as subcontractor of GARR Consortium*

### Best Paper Awards

- ESOCC 2025 11th European Conference on Service-Oriented and Cloud Computing (ESOCC)  
*Paper: "ML-Based Performance Modeling in Edge FaaS Systems"*
- CNOM 2022 IEEE ComSoc Technical Committee on Network Operation and Management (CNOM) Best Paper Award 2022  
*Paper: "Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4"*
- RNDM 2016 8th International Workshop on Resilient Network Design and Modelling (RNDM)  
*Paper: "Virtual Network Function Placement For Resilient Service Chain Provisioning"*

### Research Awards

- YPA 2025 CNOM Young Professional Award 2025  
*Issuer: IEEE ComSoc TC on Network Operation and Management (CNOM)*
- YTA 2023 Young Talents Award 2023 (1st Prize, **5 k€** of Research Grant)  
*Issuer: University of Milano-Bicocca, Milano, Italy*  
*Patron: Accademia Nazionale dei Lincei*  
*Macro-area: Mathematics, Computer Science, Industrial and Information Engineering*
- YTA 2021 Young Talents Award 2021 (3rd Prize, **1 k€** of Research Grant)  
*Issuer: University of Milano-Bicocca, Milano, Italy*  
*Patron: Accademia Nazionale dei Lincei*  
*Macro-area: Mathematics, Computer Science, Industrial and Information Engineering*

### Travel Grants

- CoNext 2020 Travel Grant. Online conference (due to COVID-19 emergency): the Grant eventually only covered the Registration fee.

## Supervision, Tutoring and Evaluation

### Supervisor/Co-supervisor of PhD Students

- 11/24-Now *Emanuele Petriglia*, Load Distribution Methods for Decentralized Function-as-a-Service, University of Milano-Bicocca (supervisor)

- 01/22-12/24 *Jacopo Talpini*, Uncertainty Quantification and Distributed Models to Enhance ML-based Network Security, University of Milano-Bicocca (co-supervisor)
- 11/17-10/21 *Damu Ding*, Design and Development of Network Monitoring Strategies in P4-enabled Programmable Switches, Fondazione Bruno Kessler/University of Bologna (co-supervisor)

#### **Partial Co-supervisor of PhD Students** (not as formal (co-)supervisor)

- 11/18-10/21 *Francescomaria Faticanti*, Strategic Allocation of Resources in Highly Distributed and Heterogeneous Computing and Information Systems under Concurrency and Multitenancy, Fondazione Bruno Kessler/University of Trento
- 11/17-10/20 *Roberto Doriguzzi Corin*, Methods and Techniques for Dynamic Deployability of Software-Defined Security Services, Fondazione Bruno Kessler /University of Bologna
- 11/15-10/18 *Antonio Marsico*, Enabling Novel Interactions between Applications and Software-Defined Networks, Fondazione Bruno Kessler/University of Trento
- 11/15-10/18 *Ali Hmaity*, Reliability Strategies for Next Generation Cloud Networks, Politecnico di Milano

#### **Supervisor of Visiting PhD Students**

- 05/25-07/25 *David Carrascal Acebron*, Department of Automatics, Univeristy of Alcalá, 3-months visiting period at University of Milano-Bicocca
- 05/19-07/19 *Joaquin Alvarez Horcajo*, Department of Automatics, Univeristy of Alcalá, 3-months visiting period at Fondazione Bruno Kessler

#### **Tutor of PhD Students**

- 11/25-Now *Elena Masserini*, University of Milano-Bicocca
- 11/24-Now *Alessandro Riva*, University of Milano-Bicocca
- 11/23-Now *Effrosyni Sokli*, University of Milano-Bicocca
- 11/21-02/25 *Alice Bernasconi*, University of Milano-Bicocca

#### **Member of PhD Evaluation Committee**

- 07/26 *Andrea Caruso*, AI-Driven Edge-Based Adaptive Services in Softwarized 5G/6G Networks, University of Catania (only thesis reviewer)
- 05/25 *Antonino Angi*, Integrating Artificial Intelligence Techniques for the Management of Softwarized Networks, Politecnico di Torino
- 04/24 *Iman Lotfimahyari*, Enhancing Performance in Programmable 5G Networks, Blockchains, and Cloud Gaming, Politecnico di Torino (also thesis reviewer)
- 11/23 *Mingyuan Zang*, Secure and Trustworthy IoT Networks, Technical University of Denmark (also thesis reviewer)
- 07/22 *Marco Zambianco*, Deep Reinforcement Learning for Inter-Numerology Interference Minimization in 5G RAN Slicing, Politecnico di Milano
- 07/22 *Memedhe Ibrahimi*, Innovative Cross-Layer Optimization Techniques for the Design of Filterless and Wavelength-Switched Optical Networks, Politecnico di Milano

- 05/22 *Eder Ollora Zaballa*, Control and Data Plane Programming-driven SDN Management and Operation, Technical University of Denmark (also thesis reviewer)
- 03/22 *Valerio Bruschi*, Closing the Gap between Performance and Efficiency in Programmable Networking, University of Rome Tor Vergata (also thesis reviewer)
- 03/22 *Sergio Spanò*, Design of Hardware Architecture for the Acceleration of Machine Learning Algorithms, University of Rome Tor Vergata

### **Supervisor/Co-supervisor of MSc/BSc Students**

- 01/13-Now Supervision or co-supervision of MSc students (25+) from University of Milano-Bicocca, Fondazione Bruno Kessler and Politecnico di Milano
- 01/13-Now Supervision or co-supervision of BSc students (15+) from University of Milano-Bicocca and Politecnico di Milano

## **Editorial Activity and Peer Reviewing**

### **Member of the Editorial Board**

- 07/26-Now IEEE Transactions on Mobile Computing (Associate Editor)
- 01/26-Now IEEE Networking Letters (Associate Editor)
- 11/20-Now MDPI Network (Associate Editor)
- 04/20-Now Elsevier's Computer Communications (Member of the Technical Committee)
- 05/20-Now Frontiers in Communications and Networks (Review Editor)
- 06/20-Now MDPI Future Internet (Member of the Reviewer Board)

### **Guest Editor**

- 09/23-09/24 Elsevier's Computer Networks - Special Issue on "Network Softwarization and Intelligence at the Edge: Challenges and Opportunities"
- 01/20-05/21 Elsevier's Computer Networks - Special Issue on "Challenges and Solutions for Hybrid SDN"
- 06/22-10/23 MDPI Sensors - Special Issue on "Network Traffic: Models, Challenges and Research Opportunities"
- 12/20-10/21 MDPI Electronics - Special Issue on "New Trends in SDN/NFV Architectures and Routing Solutions"

### **Academic Reviewer**

- 01/13-Now *Relevant Journals*: IEEE/ACM Transactions on Networking, IEEE Journal on Selected Areas in Communications, IEEE Communications Magazine, Computer Communication Review, IEEE Transactions on Smart Grid, IEEE Communications Letters, IEEE Transactions on Network and Service Management, IEEE Access, IEEE Transactions on Green Communications and Networking, IEEE Transactions on Industrial Informatics, IEEE/OSA Journal of Optical Communications and Networking, IEEE Networking Letters, Computer Networks, Computer Communications, Optical Switching and Networking, Journal on Network and Systems Management

01/13-Now *Relevant Conferences:* All the conferences for which I serve as TPC Member, IEEE Online GreenComm, IEEE/IFIP NOMS, IEEE COINS, ONDM, EuCNC,

01/21-Now **Grant Proposal Reviewer**

Invitations by the following agencies:

- National Science Center, Poland
- National Research Agency (ANR), France
- Fondazione Cariplo, Italy

## Participation to Conference and Workshop Committees

### Conference Organizing Committee Member

- ICC 2027 *Symposium Co-Chair*, IEEE International Conference on Communications (ICC) Conference, Symposium on Communication Software and Multimedia
- Networking 2026 *General Co-Chair*, 25th International Federation for Information Processing (IFIP) Networking 2025 Conference
- NetSoft 2026 *Web Co-Chair*, 12th IEEE International Conference on Network Softwarization
- NetSoft 2025 *Tutorial Co-Chair*, 11th IEEE International Conference on Network Softwarization
- ICIN 2025 *Workshop Co-Chair*, 28th Conference on Innovation in Clouds, Internet and Networks
- LANMAN 2024 *Publicity Chair*, 30th IEEE International Symposium on Local and Metropolitan Area Networks
- MTSR 2023 *Chair for MTSR 2023*, 17th International Conference on Metadata and Semantics Research
- CoNext 2022 *Web Chair*, 18th International Conference on emerging Networking EXperiments and Technologies
- NetSoft 2022 *Web Co-Chair*, 8th IEEE International Conference on Network Softwarization
- SECON 2021 *Publication Chair*, 18th International Conference on Sensing, Communication and Networking

### Workshop Organizing Committee Member

- ENS 2026 *TPC Co-Chair*, 5th International Workshop on Edge Network Softwarization (co-located with IEEE NetSoft 2026)
- Tx4Nets 2026 *TPC Co-Chair*, 3rd International Workshop on Trustworthy and eXplainable Artificial Intelligence for Networks (co-located with IFIP Networking 2026)
- ENS 2025 *General Co-Chair*, 4th International Workshop on Edge Network Softwarization (co-located with IEEE NetSoft 2025)
- Tx4Nets 2025 *TPC Co-Chair*, 2nd International Workshop on Trustworthy and eXplainable Artificial Intelligence for Networks (co-located with IFIP Networking 2025)
- ENS 2024 *General Co-Chair*, 3rd International Workshop on Edge Network Softwarization (co-located with IEEE NetSoft 2024)

- Tx4Nets 2024 *Member of the Organizing Committee*, 1st International Workshop on Trustworthy and eXplainable Artificial Intelligence for Networks (co-located with IFIP Networking 2024)
- ENS 2023 *TPC Co-Chair*, 2nd International Workshop on Edge Network Softwarization (co-located with IEEE NetSoft 2023)
- ENS 2022 *General Chair*, 1st International Workshop on Edge Network Softwarization (co-located with IEEE NetSoft 2022)
- EuroP4 2022 *Publicity Chair*, 5th European P4 Workshop (co-located with ACM CoNext 2022)

### Technical Program Committee Member

- Conferences
- Telecommunications of the Future 2026
  - WONS 2026
  - IEEE NetSoft 2023, 2024, 2025, 2026
  - IEEE HPSR 2023, 2024, 2025
  - ICNC 2025 - Edge Computing, Cloud Computing and Big Data Track
  - IEEE CSCN 2023, 2024, 2025
  - 5G&Co. 2024
  - IEEE ANTS 2022, 2023
  - IEEE SECON 2021, 2022, 2023
  - IEEE COINS 2020 - Cloud Computing Track
  - IEEE ICC 2017 - Selected Areas in Communications: SDN & NFV
  - IEEE GLOBECOM 2015 - Selected Areas in Communications: SDN
- Workshops
- IPSN Workshop 2026
  - \*LESS Workshop 2023, 2024
  - IFIP NI Workshop 2022 (co-located with Networking 2022)
  - ACM SDN-NFV Sec Workshop 2021 (co-located with CODASPY 2021)
  - IEEE STET Workshop 2018 (co-located with NetSoft 2018)

### Invited Talks, Talks, Panels, Seminars and Tutorials

- 26/06/24 *Talk* "Hierarchical Multiclass Continual Learning for Network Intrusion Detection" at IEEE NetSoft 2024
- 16/04/24 *Moderator* of the session "Making the Network Programmable and able to Orchestrate Services and Applications" at 5G&Beyond, co-located with 5G&Co
- 08/01/23 *Tutorial* "Development of Next-Generation ML-Based Security Solutions Exploiting the Capabilities of Programmable Data Planes and P4" at IEEE CCNC 2023
- 29/11/22 *Invited Talk* "Programmable Data and Control Planes Interaction for Machine-Learning-Based DDoS Detection" at GÉANT SIG-NGN Meeting 2022
- 21/03/22 *Talk* "Serverless Computing for NFV: Is it Worth it? A Performance Comparison Analysis" at 1st \*LESS Workshop (co-located with IEEE PerCom 2022)
- 17/01/22 *Talk* "DFaaS: Decentralized Function-as-a-Service for Federated Edge Computing" at INW 2022
- 09/11/21 *Moderator and Panelist* of the Student Mentor Panel at IEEE CloudNet 2021

- 25/06/21 *Expert Panelist* at 1st Workshop on Serverless Mobile Networking for 6G Communications (co-located with ACM MobiSys 2021)
- 22/04/21 *Invited Talk* "P4-based Network Traffic Entropy Estimation for the Detection of DDoS Attacks", at DRCN 2021 - Workshop "Beyond SDN. Programmable data plane: Abstraction, Architectures and Applications"
- 14/10/20 *Talk* "Rethinking the Design of Wearable Expert Systems: The Role of Network Infrastructures", at WiMob 2020
- 05/02/20 *Invited Talk* "Use Case for Data Plane Programming: Distributed Denial of Service Detection", at GÉANT Symposium 2020
- 30/01/20 *Talk* "An Incrementally-deployable P4-enabled Architecture for Network-wide Heavy-hitter Detection" at INW 2020
- 12/11/18 *Seminar* "Empowering Network Monitoring through Programmability" at University of Alcalá, Department of Automatics
- 12/10/18 *Invited Talk* "Empowering Network Monitoring through Programmability" at SDN NFV World Congress 2018
- 17/05/17 *Tutorial* "ACINO: From Application Blending to Application Centricity" at ONDM 2017 (organizer and sole speaker)
- 20/11/15 *Talk* "Impact of Processing Costs on Service Chain Placement in Network Functions Virtualization" at IEEE NFV-SDN 2015
- 11/12/13 *Talk* "A Decisional Attack to Privacy-friendly Data Aggregation in Smart Grids" at IEEE GLOBECOM 2013

## Academic Collaborations

- 2025-Now *CNR* (Italy) on Secure and Trustworthy Federated Learning (1 joint publication)
- 2024-Now *INRIA* (France) on One-Shot Federated Learning (1 joint publication)
- 2024-Now *TU Wien* (Austria) on decentralized Function-as-a-Service (1 joint publication)
- 2024-Now *Temple University* (USA) and *China Telecom* (China) on sketching algorithms in eBPF (1 joint publications)
- 2022-Now *University of Bologna* (Italy) on Programmable Data Planes and data/control plane interaction (2 joint publications)
- 2022-Now *University of Catania* (Italy) on Edge Computing with FANETs (1 joint publication)
- 2020-Now *Fondazione Bruno Kessler* (Italy) on Programmable Data Planes and Fog Computing (6 joint publications)
- 2018-Now *University of Alcalá* (Spain) on hybrid SDN and Fog Computing (3 joint publications)
- 2016-Now *Politecnico di Milano* (Italy) on various topics related to SDN and NFV (6 joint publications)
- 2020-2021 *University of Ljubljana* (Slovenia) on SLA in Fog Computing (2 joint publications)
- 2020 *University of Avignon* (France) on resource allocation in Fog Computing (2 joint publications)
- 2019-2020 *Queen's University Belfast* (United Kingdom) on security in NFV (1 joint publication)

- 2019-2020 *Korea Electronics Technology Institute* (Republic of Korea) on resource sharing in Fog Computing (2 joint publications)
- 2019-2020 *Queen Mary University of London* (United Kingdom) on Programmable Data Planes in hybrid networks (2 joint publications)
- 2017-2018 *RISE-ICT/Acreo* (Sweden) on resource negotiation in multi-layer networks (2 joint publications)
- 2016-2018 *Athens Information Technology* (Greece) on resource allocation in multi-layer networks (2016-2018) (6 joint publications)
- 2015-2016 *Lund University* (Sweden) on latency in Access Networks (3 joint publications)
- 2014-2015 *JCP-Connect* (France) and *Argela* (Turkey) on Caching in Access Networks (2 joint publications)
- 2012-2015 *Fraunhofer Research Institution for Applied and Integrated Security* (Germany) on privacy in Smart Grid (3 joint publications)

## Technical Skills

*Operating Systems:* Microsoft Windows, Linux

*Programming/Scripting/Databases:* C, Java, Matlab, HTML, Python, MySQL

*Operation Research:* AMPL, CPLEX

*Productivity/Typesetting:* Microsoft Office Suite (holder of International Certification of Digital Literacy, ICDL), LaTeX, WordPress

*Network Emulation/Simulation:* Cisco Packet Tracer, Net2Plan, Netkit, Mininet

## Language Proficiency

*Italian:* Native language

*English:* Proficiency (C1), TOEIC Certificate, April 2010, Grade: 790/990

## Publications

### Journal Papers

- TNSM 26 H. Fawaz, J. Talpini, **M. Savi**, S. Giordano, O. Ayoub, Detecting Zero-Day Attacks via Reconstruction of Feature Influence and Model Uncertainty, to appear in *IEEE Transactions on Network and Service Management*, Sept. 2026
- ICAE 26 S. Campanella, I. Ermini, **M. Savi**, C. Zandron, Membrane Computing for the Identification of Network Traffic Anomalies in Communication Networks, to appear in *Integrated Computer-Aided Engineering*, Sept. 2026
- ClusComp 26 F. Filippini, **M. Savi**, M. Ciavotta, Performance Modeling in FaaS Workloads at the Edge Using Machine Learning, in *Cluster Computing*, vol. 29, no. 430, Jun. 2026

- Network 25 J. Talpini, M. Di Gennaro, M. Carminati, **M. Savi**, F. Malandrino, SHIELDED: a Network-Aware Approach for Secure and Trustworthy Federated Learning, to appear in *IEEE Network*, Oct. 2025
- AppSci 25 D. Carrascal, J. Diaz-Fuentes, N. Manso, D. Lopez-Pajares, E. Rojas, **M. Savi**, J. M. Arco, Softwarized Edge Intelligence for Advanced IIoT Ecosystems: A Data-Driven Architecture Across the Cloud/Edge Continuum, in *Applied Sciences*, vol. 15, no. 19, pp. 10829, Oct. 2025
- TNSM 25 A. Tundo, F. Filippini, F. Regonesi, M. Ciavotta, **M. Savi**, Decentralized Edge Workload Forecasting with Gossip Learning, in *IEEE Transactions on Network and Service Management*, vol. 22, no. 4, pp. 3016-3031, Aug. 2025
- ComNet 24<sub>2</sub> S. Troia, **M. Savi**, C. Grasso, F. Slyne, L. Ruan, M. Seufert, Edge Network Softwarization and Intelligence: Challenges and Opportunities, in *Computer Networks*, vol. 255, pp. 110910, Dec. 2024 (editorial)
- JRIE 24 J. Talpini, F. Sartori, **M. Savi**, Enhancing Trustworthiness in ML-Based Network Intrusion Detection with Uncertainty Quantification, in *Journal of Reliable Intelligent Environments*, vol. 10, pp. 501-520, Sept. 2024
- TNSM 24 A. Al Sadi, **M. Savi**, A. Melis, M. Prandini, F. Callegati, Unleashing Dynamic Pipeline Reconfiguration of P4 Switches for Efficient Network Monitoring, in *IEEE Transactions on Network and Service Management*, vol. 21, no. 3, pp. 3482-3497, Jun. 2024
- ComNet 24<sub>1</sub> R. Doriguzzi-Corin, L. A. Dias-Knob, L. Mendozzi, D. Siracusa, **M. Savi**, Introducing Packet-Level Analysis in Programmable Data Planes to Advance Network Intrusion Detection, in *Computer Networks*, vol. 239, pp. 110162, Feb. 2024
- ComNet 23 S. Troia, **M. Savi**, G. Nava, L. M. Moreira Zorello, T. Schneider, G. Maier, Performance Characterization and Profiling of Chained CPU-bound Virtual Network Functions, in *Computer Networks*, vol. 231, pp. 109815, May 2023
- ComCom 23 F. Faticanti, **M. Savi**, F. De Pellegrini, D. Siracusa, Locality-aware Deployment of Application Microservices for Multi-Domain Fog Computing, in *Computer Communications*, vol. 203, pp. 180-191, Apr. 2023
- TDSC 22 D. Ding, **M. Savi**, D. Siracusa, Tracking Normalized Network Traffic Entropy to Detect DDoS Attacks in P4, in *IEEE Transactions on Dependable and Secure Computing*, vol. 19, no. 6, pp. 4019-4031, Nov. 2022
- TNSM 22 S. Troia, M. Mazzara, **M. Savi**, L. M. Moreira Zorello, G. Maier, Resilience of Delay-sensitive Services with Transport-based Monitoring in SD-WAN, in *IEEE Transactions on Network and Service Management*, vol. 19, no. 3, pp. 2652-2663, Sept. 2022
- AppSci 22 F. Sartori, **M. Savi**, J. Talpini, Tailoring mHealth Apps on Users to Support Behavior Change Interventions: Conceptual and Computational Considerations, in *Applied Sciences*, vol. 12, no. 8, pp. 1-19, Apr. 2022
- TCC 21 **M. Savi**, M. Tornatore, G. Verticale, Impact of Processing-resource Sharing on the Placement of Chained Virtual Network Functions, in *IEEE Transactions on Cloud Computing*, vol. 9, no. 4, pp. 1479-1492, Oct. 2021

- ComNet 21 E. Rojas, R. Amin, C. Guerrero, **M. Savi**, A. Rastegarnia, Challenges and Solutions for Hybrid SDN, in *Computer Networks*, vol. 195, pp. 108198, Aug. 2021 (*editorial*)
- Access 21 **M. Savi**, F. Olivadese, Short-Term Energy Consumption Forecasting at the Edge: A Federated Learning Approach, in *IEEE Access*, vol. 9, pp. 95949-95969, Jul. 2021
- Sensors 21 R. Berto, P. Napoletano, **M. Savi**, A LoRa-Based Mesh Network for Peer-to-Peer Long-Range Communication, in *Sensors*, vol. 21, no. 13, pp. 1-12, Jun. 2021
- TNSM 21 D. Ding, **M. Savi**, F. Pederzoli, M. Campanella, D. Siracusa, In-Network DDoS Victim Identification Using Programmable Commodity Switches, in *IEEE Transactions on Network and Service Management*, vol. 17, no. 2, pp. 1191-1202, Jun. 2021
- ComLett 21 J. Alvarez-Horcajo, I. Martinez-Yelmo, D. Lopez-Parajes, J. A. Carral, **M. Savi**, A Hybrid SDN Switch Based on Portable P4 Code, in *IEEE Communications Letters*, vol. 25, no. 5, pp. 1482-1485, May 2021
- JGC 20 P. Kochovski, V. Stankovski, S. Gec, F. Faticanti, **M. Savi**, D. Siracusa, S. W. Kum, Smart Contracts for Service-Level Agreements in Edge-to-Cloud Computing, in *Journal of Grid Computing*, vol. 18, no. 4, pp. 673-690, Dec. 2020
- OSN 20 A. Marsico, **M. Savi**, D. Siracusa, E. Salvadori, An Automated Negotiation Framework for Application-Aware Transport Network Services, in *Optical Switching and Networking*, vol. 38, pp. 1-13, Sept. 2020
- ComLett 20 J. Alvarez-Horcajo, E. Rojas, I. Martinez-Yelmo, **M. Savi**, D. Lopez-Parajes, HDDP: Hybrid Domain Discovery Protocol for heterogeneous devices in SDN, in *IEEE Communications Letters*, vol. 24, no. 8, pp. 1655-1659, Aug. 2020
- TNSM 20<sub>2</sub> D. Ding, **M. Savi**, G. Antichi, D. Siracusa, An Incrementally-deployable P4-enabled Architecture for Network-wide Heavy-hitter Detection, in *IEEE Transactions on Network and Service Management*, vol. 17, no. 1, pp. 75-88, Mar. 2020
- TNSM 20<sub>1</sub> R. Doriguzzi-Corin, S. Scott-Hayward, D. Siracusa, **M. Savi**, E. Salvadori, Dynamic and Application-Aware Provisioning of Chained Virtual Security Network Functions, in *IEEE Transactions on Network and Service Management*, vol. 17, no. 1, pp. 294-307, Mar. 2020
- OSN 20 A. Hmaity, **M. Savi**, L. Askari, F. Musumeci, M. Tornatore, A. Pattavina, Latency- and Capacity-aware Placement of Chained Virtual Network Functions in FMC Metro Networks, in *Optical Switching and Networking*, vol. 35, pp. 1-12, Jan. 2020
- OSN 19 **M. Savi**, D. Siracusa, Application-aware Service Provisioning and Restoration in SDN-based Multi-layer Transport Networks, in *Optical Switching and Networking*, vol. 30, pp. 71-84, Nov. 2019
- JLT 18 C. Rozic, **M. Savi**, C. Matrakidis, D. Klonidis, D. Siracusa, A Dynamic Multi-layer Resource Allocation and Optimization Framework in Application-centric Networks, in *Journal of Lightwave Technology*, vol. 36, issue 20, pp. 4908-4914, Oct. 2018
- Networks 17 A. Hmaity, **M. Savi**, F. Musumeci, M. Tornatore, A. Pattavina, Protection Strategies for Virtual Network Functions Placement and Service Chains Provisioning, in *Networks*, vol. 70, no. 4, pp. 373-387, Dec. 2017

- ComNet 15 **M. Savi**, R. Fratini, G. Verticale, M. Tornatore, Performance Evaluation of Video Server Replication in Metro/Access Networks, in *Computer Networks*, vol. 93, part 1, pp. 96-110, Dec. 2015
- LAT 15 **M. Savi**, G. Verticale, M. Tornatore, A. Pattavina, An Energy-Efficient Strategy for VoD Content Replication in Integrated Metro/Access Networks, in *IEEE Latin America Transactions*, vol. 13, issue 11, pp. 3627-3633, Nov. 2015 (*in Spanish*)
- TSG 15 **M. Savi**, C. Rottondi, G. Verticale, Evaluation of the Precision-Privacy Tradeoff of Data Perturbation for Smart Metering, in *IEEE Transactions of Smart Grid*, vol. 6, no. 5, pp. 2409-2416, Sept. 2015
- SCN 15 C. Rottondi, **M. Savi**, G. Verticale, C. Krauss, Mitigation of Peer-to-Peer Overlay Attacks in the Automatic Metering Infrastructure of Smart Grids, in *Security and Communication Networks*, vol. 8, issue 3, pp. 343-359, Feb. 2015

### Conference and Workshop Papers

- CNSM 26 F. Filippini, M. Maggioni, **M. Savi**, From Reachability to Efficiency: Enhancing Reward Shaping and Curriculum Reinforcement Learning for Decentralized Satellite Routing, to appear in *International Conference on Network and Service Management (CNSM)*, Oct. 2026
- ACSOS 26 F. Filippini, F. Villa, M. Ciavotta, **M. Savi**, Autonomic GNN-Based Shortest-Path Routing in LEO Networks via Imitation and Transfer Learning, to appear in *IEEE International Conference on Autonomic Computing and Self-Organizing Systems (ACSOS)*, Sept. 2026
- ICAART 25<sub>2</sub> J. Talpini, N. Civiero, F. Sartori, **M. Savi**, Federated Calibration Framework for ML-based Intrusion Detection Systems, in *Lecture Notes in Computer Science, International Conference on Agents and Artificial Intelligence 2025 (ICAART 2025)*, Revised Selected Papers, Jul. 2026
- ICML 25 J. Talpini, **M. Savi**, G. Neglia, FedBEns: One-Shot Federated Learning based on Bayesian Ensemble, in *International Conference on Machine Learning (ICML)*, Jul. 2025
- IPDPS 25 E. Petriglia, F. Filippini, M. Ciavotta, **M. Savi**, Multi-Agent Reinforcement Learning for Workload Distribution in FaaS-Edge Computing Systems, in *IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)*, Jun. 2025
- ICC 25 M. Zang, F. De Iaco, J. Wu, **M. Savi**, In-Kernel Traffic Sketching for Volumetric DDoS Detection, to appear in *IEEE International Conference on Communications (ICC)*, Jun. 2025
- ICAART 25<sub>1</sub> J. Talpini, N. Civiero, F. Sartori, **M. Savi**, A Federated Approach to Enhance Calibration of Distributed ML-based Intrusion Detection Systems, to appear in *International Conference on Agents and Artificial Intelligence (ICAART)*, Feb. 2025
- ESOCC 25 F. Filippini, L. Cavenaghi, N. Calmi, **M. Savi**, M. Ciavotta, ML-Based Performance Modeling in Edge FaaS Systems, to appear in *European Conference On Service-Oriented and Cloud Computing (ESOCC)*, Feb. 2025

- WETICE 24 F. Sartori, **M. Savi**, G. Tarrini, J. Talpini, Towards a Knowledge Diversity Notion to Identify Intrusions in Industrial Contexts, to appear in *International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE)*, Jun. 2024
- SEATED 24<sub>2</sub> F. Filippini, N. Calmi, L. Cavenaghi, E. Petriglia, **M. Savi**, M. Ciavotta, Analysis and Evaluation of Load Management Strategies in a Decentralized FaaS Environment: A Simulation-Based Framework, in *Workshop on Serverless at the Edge (SEATED)*, Jun. 2024
- SEATED 24<sub>1</sub> E. Petriglia, F. Filippini, G. Pracucci, **M. Savi**, M. Ciavotta, Comparing Actor-Critic and Neuroevolution Approaches for Traffic Offloading in FaaS-powered Edge Systems, in *Workshop on Serverless at the Edge (SEATED)*, Jun. 2024
- NetSoft 24 J. Talpini, F. Sartori, **M. Savi**, Hierarchical Multiclass Continual Learning for Network Intrusion Detection, in *IEEE Conference on Network Softwarization (NetSoft)*, Jun. 2024
- ICC 23 N. Di Cicco, J. Talpini, M. Ibrahimi, **M. Savi**, M. Tornatore, Uncertainty-Aware QoT Forecasting in Optical Networks with Bayesian Recurrent Neural Networks, in *IEEE International Conference on Communications (ICC)*, May 2023
- ICIN 23 A. Al Sadi, **M. Savi**, A. Melis, D. Berardi, M. Prandini, F. Callegati, Real-time Pipeline Reconfiguration of P4 Programmable Switches to Efficiently Detect and Mitigate DDoS Attacks, in *Conference on Innovation in Clouds, Internet and Networks (ICIN)*, Mar. 2023 (demo paper)
- ICAART 23 J. Talpini, F. Sartori, **M. Savi**, A Clustering Strategy for Enhanced FL-Based Intrusion Detection in IoT Networks, in *International Conference on Agents and Artificial Intelligence (ICAART)*, Feb. 2023
- MTSR 22 F. Sartori, **M. Savi**, K. Shala, A. Moglia and J. Talpini, Knowledge Artifacts to Support Dietary: the Diet Module of the PERCIVAL Project, in *International Conference on Metadata and Semantics Research (MTSR)*, Nov. 2022
- MedComNet 22 L. Galluccio, C. Grasso, G. Maier, R. Raftopoulos, **M. Savi**, G. Schembra, S. Troia, Reinforcement Learning for Resource Planning in Drone-Based Softwarized Networks, in *Mediterranean Communication and Computer Networking Conference (MedComNet)*, Jun. 2022
- NOMS 22 D. Ding, **M. Savi**, F. Pederzoli, D. Siracusa, Design and Development of Network Monitoring Strategies in P4-enabled Programmable Switches, in *IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Apr. 2022
- PerCom 22 **M. Savi**, A. Banfi, A. Tundo, M. Ciavotta, Serverless Computing for NFV: Is it Worth it? A Performance Comparison Analysis, in *IEEE International Conference on Pervasive Computing and Communications Workshops (PerCom Workshops)*, Mar. 2022
- CloudNet 21 M. Ciavotta, D. Motterlini, **M. Savi**, A. Tundo, DFaaS: Decentralized Function-as-a-Service for Federated Edge Computing, in *IEEE International Conference on Cloud Networking (CloudNet)*, Nov. 2021

- Networking 21 D. Ding, **M. Savi**, F. Pederzoli, D. Siracusa, INVEST: Flow-based Traffic Volume Estimation in Data-plane Programmable Networks, in *IFIP Networking Conference*, Jun. 2021
- MTSR 20 F. Sartori, **M. Savi**, R. Melen, The Role of Data Storage in the Design of Wearable Expert Systems, in *International Conference on Metadata and Semantics Research (MTSR)*, Dec. 2020
- WiMob 20 **M. Savi**, F. Sartori, R. Melen, Rethinking the Design of Wearable Expert Systems: The Role of Network Infrastructures, in *IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)*, Oct. 2020
- COINS 20 F. Faticanti, **M. Savi**, F. De Pellegrini, P. Kochovski, V. Stankovski, D. Siracusa, Deployment of Application Microservices in Multi-Domain Federated Fog Environments, in *IEEE International Conference on Omni-layer Intelligent Systems (COINS)*, Sept. 2020
- NOMS 20 D. Ding, **M. Savi**, D. Siracusa, Estimating Logarithmic and Exponential Functions to Track Network Traffic Entropy in P4, in *IEEE/IFIP Network Operations and Management Symposium (NOMS)*, Apr. 2020 (**CNOM best paper award 2022**)
- ICIN 20 **M. Savi**, D. Santoro, K. Di Meo, D. Pizzolli, M. Pincheira, R. Giaffreda, S. Cretti, S. W. Kum, D. Siracusa, A Blockchain-based Brokerage Platform for Fog Computing Resource Federation, in *Conference on Innovation in Clouds, Internet and Networks (ICIN)*, Feb. 2020 (*demo paper*)
- NetSoft 19 D. Ding, **M. Savi**, G. Antichi, D. Siracusa, Incremental Deployment of Programmable Switches for Network-wide Heavy-hitter Detection, in *IEEE Conference on Network Softwarization (NetSoft)*, Jun. 2019
- OFC 19 F. Pederzoli, **M. Savi**, D. Siracusa, E. Salvadori, Optimization of Secure Quantum Key Distribution Backbones in Core Transport Networks, in *Optical Fiber Communication Conference (OFC)*, Mar. 2019
- OFC 18<sub>2</sub> A. Marsico, **M. Savi**, D. Siracusa, E. Salvadori, An Automated Service-downgrade Negotiation Scheme for Application-centric Networks, in *Optical Fiber Communication Conference (OFC)*, Mar. 2018
- OFC 18<sub>1</sub> I. Tomkos, C. Rozic, **M. Savi**, P. Skoldstrom, V. Lopez, M. Chamania, D. Siracusa, C. Matrakidis, D. Klonidis, Application Aware Multilayer Control and Optimization of Elastic WDM Switched Optical Networks, in *Optical Fiber Communication Conference (OFC)*, Mar. 2018
- ECOC 17 C. Rozic, **M. Savi**, C. Matrakidis, D. Klonidis, D. Siracusa, I. Tomkos, Application-centric Multi-layer Resource Allocation in Availability-aware SDN-orchestrated Networks, in *European Conference on Optical Communication (ECOC)*, Sept. 2017
- NetSoft 17 A. Marsico, M. Santuari, **M. Savi**, D. Siracusa, A. Ghafoor, S. Junique, P. Skoldstrom, An Interactive Intent-based Negotiation Scheme for Application-centric Networks, in *IEEE Conference on Network Softwarization (NetSoft)*, Jul. 2017 (*demo paper*)
- EuCNC 17 **M. Savi**, C. Rozic, C. Matrakidis, D. Klonidis, D. Siracusa, I. Tomkos, Benefits of Multi-Layer Application-aware Resource Allocation and Optimization, in *European Conference on Networks and Communications (EuCNC)*, Jun. 2017

- OFC 17<sub>2</sub> C. Rozic, **M. Savi**, C. Matrakidis, D. Klonidis, D. Siracusa, I. Tomkos, A Framework for Dynamic Multi-layer Resource Allocation in Application-centric Networking, in *Optical Fiber Communication Conference (OFC)*, Mar. 2017
- OFC 17<sub>1</sub> **M. Savi**, F. Pederzoli, D. Siracusa, An Application-aware Multi-layer Service Provisioning Algorithm based on Auxiliary Graphs, in *Optical Fiber Communication Conference (OFC)*, Mar. 2017
- SoftCOM 16 S. Host, W. Tarneberg, P. Odling, M. Kihl, **M. Savi**, M. Tornatore, Network Requirements for Latency-critical Services in a Full Cloud Deployment, in *International Conference on Software, Telecommunications and Computer Networks (SoftCOM)*, Sept. 2016
- RNDM 16 A. Hmaity, **M. Savi**, F. Musumeci, M. Tornatore, A. Pattavina, Virtual Network Function Placement For Resilient Service Chain Provisioning, in *International Workshop on Resilient Networks Design and Modeling (RNDM)*, Sept. 2016 (**best paper award**)
- ICTON 16 **M. Savi**, A. Hmaity, G. Verticale, S. Host, M. Tornatore, To Distribute or Not to Distribute? Impact of Latency on Network Function Distribution at the Edge of FMC Networks, in *International Conference on Transparent Optical Networks (ICTON)*, Jul. 2016
- NFV-SDN 15 **M. Savi**, M. Tornatore, G. Verticale, Impact of Processing Costs on Service Chain Placement in Network Functions Virtualization, in *IEEE Conference on Network Function Virtualization and Software Defined Networks (NFV-SDN)*, Nov. 2015
- GreenCom 15 **M. Savi**, O. Ayoub, F. Musumeci, Z. Li, G. Verticale, M. Tornatore, Energy-efficient Caching for Video-on-Demand in Fixed-Mobile Convergent Networks, in *IEEE Online Conference on Green Communications (Online GreenCom)*, Nov. 2015
- HPSR 15 Z. Li, J. C. Point, S. Ciftci, O. Eker, G. Mauri, **M. Savi**, G. Verticale, ICN Based Shared Caching in Future Converged Fixed and Mobile Network, in *IEEE International Conference on High Performance Switching and Routing (HPSR)*, Jun. 2015
- LatinCom 14 **M. Savi**, G. Verticale, M. Tornatore, Energy-Efficient VoD Content Delivery and Replication in Integrated Metro/Access Networks, in *IEEE Latin-American Conference on Communications (LatinCom)*, Nov. 2014
- ICC 14 R. Fratini, **M. Savi**, G. Verticale, M. Tornatore, Using Replicated Video Servers for VoD Traffic Offloading in Integrated Metro/Access Networks, in *IEEE International Conference on Communications (ICC)*, Jun. 2014
- GLOBECOM 13 C. Rottondi, **M. Savi**, D. Polenghi, G. Verticale, C. Krauss, A Decisional Attack to Privacy-friendly Data Aggregation in Smart Grids, in *IEEE Global Communications Conference (GLOBECOM)*, Dec. 2013
- SG-TEP 12 C. Rottondi, **M. Savi**, D. Polenghi, G. Verticale, C. Krauss, Implementation of a Protocol for Secure Distributed Aggregation of Smart Metering Data, in *International Conference on Smart Grid Technology, Economics and Policies (SG-TEP)*, Dec. 2012

**Posters and Abstracts** (not included in proceedings)

- EuroP4 19<sub>2</sub> M. Campanella, P. Benacek, I. Golub, X. Jeannin, D. Parniewicz, **M. Savi**, F. Loui, How NRENs can benefit from P4, in *P4 Workshop in Europe (EuroP4)*, Sept. 2019
- EuroP4 19<sub>1</sub> D. Ding, **M. Savi**, D. Siracusa, Estimation of Logarithmic and Exponential Functions Entirely in P4-programmable Data Planes, in *P4 Workshop in Europe (EuroP4)*, Sept. 2019
- EuCNC 15 Z. Li, Y. Liu, J. C. Point, S. Ciftci, O. Eker, **M. Savi**, M. Tornatore, G. Verticale, Shared Cache as a Service in Future Converged Fixed and Mobile Network, in *European Conference on Networks and Communications (EuCNC)*, Jul. 2015