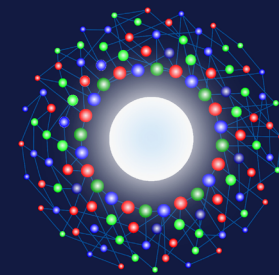# 25th International Conference on Optical Network Design and Modelling

June 28 – July 1, 2021 Gothenburgh Sweden

Call for Papers

https://ondm2021.chalmers.se/

ONDM 2021

Following the tradition of previous editions, ONDM 2021 addresses cutting-edge research in established areas of optical networking and their adoption in support of a wide variety of new services and applications. This includes the most recent trends such as 5G and beyond; data-centre networking; Internet of things; cloud/edge computing; content delivery; big data, data analytics, network telemetry and real-time monitoring; autonomic networking; artificial intelligence / machine learning assisted networks; visible light networks; and quantum secured networks.

Such trends drive the need for increased capacity, efficiency, flexibility, and adaptability in the functions that the network can perform. In turn, these needs can be achieved by developing new optical network architectures, based on different optical network disaggregation models, exploiting and integrating novel multidimensional photonic technology solutions as well as by adopting open and highly programmable hardware and software platforms such as software defined networking (SDN), and network function virtualization (NFV), to allow supporting new business models and opportunities. The scope of the conference includes but is not limited to the following topics:

- Advances in optical network modelling and optimization
- Routing and spectrum assignment in fixed and flex-grid optical networks
- Optical network availability, resilience, survivability, security and privacy
- Multi-layer (e.g., IP over optical) networking
- Optical networks exploiting photonic integrated circuits
- Visible light communications and networks
- Optical and wireless network convergence, including radio-over-fibre access networks
- Optical networks in 5G and beyond: backhaul, midhaul and fronthaul networking
- Novel and multidimensional optical network architectures; multi-mode/few-modes optical networks
- Novel optical node designs including disaggregation and open optical line systems
- Optical networks in support of intra-/inter-data centre connectivity and cloud/edge computing

- Optical network control, management and orchestration including SDN and NFV solutions
- Slicing, service chaining, virtualization and multi-tenancy techniques for optical networks
- Optical networking supporting low latency and high bandwidth network function virtualization
- Orchestration and control of IT and network resources in optical data-centre networks
- Artificial Intelligence and data analytics techniques for optical networks
- Novel network telemetry and real-time monitoring technologies for optical networks
- Energy efficiency in optical networks
- Transporting Power over Fibre
- The hollow fibre revolution in network design
- Optical networking in support of vertical industries
- Field trials and interoperability demonstrations of optical networks
- Techno-economic studies of optical network

ONDM2021 Chairs
General Chairs
Paolo Monti, Chalmers University of Technology, Sweden
Marija Furdek, Chalmers University of Technology, Sweden
TPC Chairs
Carmen Mas Machuca, Technical University of Munich (TUM), Germany
Jarosław Turkiewicz, Warsaw University of Technology (WUT), Poland
David Larrabeiti, University Carlos III of Madrid (UC3M), Spain

Important Dates
Submission Deadline: March 12, 2021 · Acceptance Notification: May 14, 2021 · Camera Ready Submission: June 4, 2021

ONDM Steering Committee
Pablo Pavón Mariño, Universidad Politécnica de Cartagena (UPCT), Spain
Tibor Cinkler, Budapest University of Technology and Economics (BME), Hungary
Marco Ruffini, Trinity College Dublin, Ireland
Anna Tzanakaki, National and Kapodistrian University of Athens, Greece
Raül Muñoz, CTTC, Barcelona, Spain
Paolo Monti, Chalmers University of Technology, Sweden