



# Call for Papers

## *Communication QoS, Reliability & Modeling Symposium*

### Symposium Co-Chairs

- Noriaki Kamiyama, Ritsumeikan University, Japan - [kamiaki@fc.ritsumei.ac.jp](mailto:kamiaki@fc.ritsumei.ac.jp)
- Petros Spachos, University of Guelph, Canada - [petros@uoguelph.ca](mailto:petros@uoguelph.ca)
- Yulei Wu, University of Bristol, UK - [y.l.wu@bristol.ac.uk](mailto:y.l.wu@bristol.ac.uk)

### Scope and Motivation

In recent information society, communication quality and network reliability become even more important. Stable networks are essential infrastructure in the modern life. In current communication infrastructure, different networks need to co-exist for end-to-end quality of service (QoS) provisioning in a wide range of heterogeneous applications, with virtualization technologies and AI/ML-assisted management.

The Communication QoS, Reliability and Modeling (CQRM) Symposium aims at providing an international venue for the discussion of research advances in communications service provisioning, quality of service/experience technologies, modeling and formal methods, and analytical and experimental techniques to allow the design of communication networks as a reliable information infrastructure with QoS capability. The scope of this symposium is agnostic to network technologies. Specifically, the goal is to address the key challenges to provide the required level of QoS, resiliency, security, and reliability to coexisting networks that are heterogeneous in nature, in size, and in the type of information transmitted.

As Colorado is a national hub for the Cable, Space, and Satellite Communication Industries, submissions on topics of interest to these industries are especially encouraged.

### Topics of Interest

Topics of interest for the CQRM Symposium include, but are not limited to:

- AI/ML to enhance QoS/QoE
- Design and evaluation of microservices-based networking for 5G/6G-enabled edge networks
- Design and scalability of smart city, smart home and crowd sensing applications
- Formal verification methods for QoS and reliability
- Integrated control of network and computing resources to enhance QoS/QoE
- Innovative modeling techniques for large-scale emerging network technologies
- Metrics and Models for Quality of Experience (QoE) and Quality of Service (QoS)
- Network design, operation, management, and automation for maximizing QoS/QoE
- QoS and performance modelling of UAV-assisted Wireless Networks
- QoS provisioning for massive machine-type communications and in IoT networks
- Quality and performance in grid, distributed and cloud computing
- Quality and performance in overlay (including peer-to-peer) networks
- Quality and performance in beyond 5G/6G wireless and mobile networks

- Quality and performance of Multi-access Edge Computing (MEC) and fog computing solutions
- Quality and performance of SDN/NFV handoff management for edge computing in 5G
- Quality, measurements and performance in IoT and big data platforms and applications and cyber-physical systems
- Digital twin for Communication QoS, Reliability & Modeling
- Security, reliability, privacy and trust by design and performance evaluation
- Scalability, robustness and resilience
- Standardization aspects of QoS and reliability

## Important Dates

**Paper Submission:** 11 October 2023

**Notification:** 18 January 2024

**Camera Ready and Registration:** 15 February 2024

## How to Submit a Paper

All papers for technical symposia should be submitted via EDAS. Full instructions on how to submit papers are provided on the IEEE ICC 2024 website: <https://icc2024.ieee-icc.org/>

## Journal Publication Opportunity

The authors of selected papers from this symposium will be invited to submit an extended version of their work for fast-track review and possible publication in the IEEE Open Journal of the Communications Society.