



European Wireless (EW) is a key venue for European and worldwide researchers to be acquainted with the latest trends in wireless communications and networking. The main theme of EW 2023 is “**6G driving a sustainable growth**”. This 28th edition of EW (EW 2023) will be held in **Rome**, Italy, on **Oct 2-4, 2023**. Currently, the conference is planned to be in presence, hosting authors’ presentations, and allowing for interactions and networking among the participants. Nevertheless, if health and travelling rules and restrictions arise, the hybrid mode will also be considered and set up.

The conference will consist of one main track and four special sessions, as following:

Main track: 6G communication networks

- Radio Access Network and Backhaul/Fronthaul
 - Design of mmWave radio access for 5G and beyond
 - Low-cost radio, full-duplex, scalable, sustainable, low-complexity access systems
 - Mobile base stations based on UAVs and drones for 5G
 - Optimization and resource allocation
 - Channel modeling and propagation
 - Modulation & coding
 - Interference management, localization and positioning
 - Error-correcting codes for 6G
 - Internet of Things
 - Virtualization of radio access network
 - Slicing of wireless virtual resources
 - Fundamental limits, information theory for wireless
 - Wired-wireless integration
 - Ultra-Wideband Communications
 - Optical wireless and visible light communications
 - Energy efficient, green communications, and sustainable networks
 - Testbeds for future generation radio access networks

- Mobility management and billing technologies
- Reconfigurable Intelligent Surfaces
- Edge and Core Network
 - Protocols, architectures, and resource allocation
 - Metrics for quality-of-service (QoS) and quality-of-experience (QoE)
 - Network coding
 - Mobile Edge Cloud
 - Distributed computing and distributed storage
 - SDN-NFV and virtual network resource slicing
 - Distributed caching, multi-tenancy, cloud computing and edge computing
 - AI and machine learning for edge and core future generations networks
 - Federated learning
 - Autonomic networks
 - Application layer: mobile apps and platforms, emerging applications in wireless networks
- Three-dimensional networking
 - Satellite-aerial-terrestrial integration
 - AI and Machine Learning for three-dimensional networks
 - Coding, modulation, and synchronization
 - Multiple Access techniques
 - MIMO, multi-user detection & diversity techniques
 - Fading and interference mitigation techniques
 - Network slicing
 - Radio Resource Management
 - Smart on-board processing techniques
 - MEC schemes for integrated satellite-aerial-terrestrial networks
 - SDN/NFV for integrated satellite-aerial-terrestrial networks
 - Very/Ultra High Throughput Satellites
 - Optical feeder links
 - Massive M2M/IoT over satellite
 - Swarm of nano and pico satellites technologies
 - Mega Constellations
 - NTN Standardisation within 3GPP
 - Satellite demonstrations and trials
 - Big Data analytics over satellite and aerial platforms
- 6G Verticals and Services
 - Internet of Things
 - Smart cities
 - Vehicular communications
 - Industry views on future communication networks
 - Regional visions and requirements for future communication networks
 - Augmented and virtual reality, and digital twins
 - eHealth, eFinance, and blockchain

- Models of use cases, key performance indicators, and tradeoffs
- Security
 - Security and Privacy
 - Physical-Layer Security
 - Cyber-Physical Systems
 - Secure solutions for SDN and NFV
 - Homomorphic encryption

Special Session 1: Tactile Internet

- Ultra-reliable low-latency communications for the Tactile Internet with human-in-the-loop (TaHiL)
- Human-machine-type communications, interaction, and augmentation
- Human–robot cohabitation in industry
- Human-machine learning
- New frontiers and visions for the Tactile Internet
- Latest advancements in studying human perception and action
- Models of use cases, key performance indicators, and tradeoffs
- Internet of Skills
- Haptic codecs
- AI and softwarization for the Tactile Internet
- Augmented perception and interaction
- Human-inspired models for tactile computing
- Sensors and actuators for the Tactile Internet
- Tactile electronics

Special Session 2: Post-Shannon and Semantic Communications

- Post-Shannon communication
- Message Identification
- Physical layer integration
- Common randomness generation
- Semantic communications
- Semantic compression
- Goal-oriented communications
- Joint communication and control
- Functional compression

Special Session 3: Quantum Communication Networks

- Quantum programming and software for quantum networks
- Simulation of quantum communications and computing
- Quantum repeaters
- Quantum information theory
- Quantum algorithms
- Quantum machine learning
- Algorithms, protocols, and technologies for the Quantum Internet
- Quantum local area networks and metropolitan networks
- Quantum physical-layer service integration
- Quantum aerial communications
- Quantum space communications

Special Session 4: Molecular Communications

- Molecular communications in the Internet of Bio-Nano Things
- Integration of molecular communications into future networks
- Molecular communications in the context of network functions virtualization (NFV)
- Molecular local area networks
- Molecular computing, storage and communication
- Protocols, algorithms, models and technologies for molecular communications
- Modulation techniques and channel capacity for molecular communications
- Molecular space communications

Important dates:

Tutorial proposal deadline: 15th May 2023

Tutorial notification: 31st May 2023

Paper submission: 16th June 2023

Notification of acceptance: 28th July, 2023

Camera ready due: 25th August 2023

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