CALL FOR PAPERS

Over the past two decades, wireless communications have fundamentally transformed our daily life and created an almost fully connected society, linking billions of people and devices to reap the benefits of today's digital economy. Every sector of the world economy now relies on wireless technologies in fundamental ways, from banking and agriculture to transportation and healthcare. In addition, powerful cutting-edge technologies that rely on robust wireless communications networks – such as 5G, artificial intelligence, the Internet of Things, and Industry 4.0 – hold great potential for improving lives at an unprecedented pace and scale.

However, the rapid development of advanced telecommunications networks, in response to the continuously growing global demand for data transmission and access to information, also entails a very large increase in the resources used. The telecommunications of the future must face new challenges, including a significant reduction in energy consumption while maintaining the same quality parameters, and ensuring sustainable development through the responsible use of available resources.

At the same time, the complexity of telecommunications systems is increasing so significantly that the processes of design, maintenance and development have to be considered holistically. There is a strong need for making the network not only resource sustainable, but also autonomous and automated.

There is also room for societal and technological improvements to address the digital divide that continues to exist in the world. Tackling uneven global distribution and ensuring a better world requires super-connecting the already connected and connecting the unconnected, while guaranteeing an impressive quality of experience worldwide. Future wireless communication systems must also effectively support a universal and ubiquitous cyber physical infrastructure.

The huge variety of intelligent applications envisaged for a wireless future will require a novel network structure, spectrum access schemes, and resource allocation solutions, while factoring in energy efficiency and security/privacy considerations. Thus, highly innovative wireless solutions with varied quality specifications when it comes to service requirements have become paramount in ensuring a greener world. Examples of some technological breakthroughs include intelligent surfaces, semantic communications, and digital twin technology, to name a few.

Under the theme "Towards sustainable and automated communications", the 49th Wireless World Research Forum (WWRF) will take place at Poznan University of Technology, Poland, from 28-30 March 2023. You are invited to be part of designing the wireless future by joining us for three days of insightful discussions, presentations, innovative brainstorming, and expert-level networking.

Authors are invited to submit original manuscripts aligned with the theme of the event, on one or more of the following topics, or on any relevant aspect of wireless innovation for a better world:

- Autonomous communications
- Towards automated wireless communications
- Resource sustainability in future communications
- Cutting Edge Solutions for Sustainable Communications
- Openness, Disaggregation, Modularity and Programmability
- Intelligent Applications for Vertical Industries
- Data Analytics, AI, and Machine Learning for Sustainability and Network Automation
- Software-Defined Infrastructure
- Advanced Radio Technologies
- Tactile Internet
- Green Communications and Networking
- THz Communications
- Bridging the Digital Divide Beyond 5G
- Beyond 5G Technologies
- Innovations in Business Models for Wireless Networks
- Cyber-Physical Systems and Networks
- Privacy and Security
- Connected Vehicles
- Holographic MIMO & Reconfigurable Intelligent Surfaces
- Applications and impact of quantum-based technologies
- Semantic Communications
- Spectrum Issues and Regulatory Principles
- Social Network-Aware Wireless
- Internet of Things and Wearable Technologies

Authors are expected to be physically present in Poznan to present their contributions.

Why Attend WWRF 49?

WWRF is a unique forum which brings together the wireless community to tackle key research challenges. As an attendee, you will be able to: (i) define your future wireless strategies by leveraging the insights of industry leaders, (ii) ease future standardization by harmonizing research views at the research stage, (iii) identify new trends and ideas in wireless communications, and (iv) share insights on research directions and visions for the Wireless World.

Submission Instructions

Contributors should submit an extended abstract by 14th February 2023 to contributions@wwrf.ch for review. Extended abstracts should be preferably at least two pages in length, either in plain ASCII text, MS Word or Adobe PDF. A template for abstracts or papers is available at the link below. Full papers must be prepared using the WWRF template, which is also available below. The following list shows the different working groups (WGs) and Vertical Industry Platforms (VIPs) to one of which the contributions should be directed:

- Working Group,A/B - User Needs & Requirements, Services and Devices in a Wireless World
- Working Group C - New Directions in Communication Architectures and Technologies, including SDN, NFV and MEC
- Working Group D - Radio Communication Technologies: Air Interfaces for 6G, advance wireless access techniques, MIMO, Reconfigurable Intelligent Surfaces, Radio Resource Management, SDR and Spectrum Sharing
- WG BM - Future Business Models supported and enabled by 5G and Beyond wireless technologies
- WG High-Frequency Technologies: mm Wave and THz Communications and Sensing
- VIP WG 5G e/m-Health and Wearables
- VIP WG Connected Vehicles
- VIP WG Track-to-Train communications
- WG Cybersecurity
- WG 6G

IMPORTANT DATES

ABSTRACT DEADLINE	***14th February 2023***
NOTIFICATION OF ACCEPTANCE	***21st February 2023***
EARLY REGISTRATION	***21th February 2023***
FINAL PAPER AND COPYRIGHT LICENCE SUBMISSION	***21st March 2023***
EVENT	***28-30th March 2023***

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Authors must complete and submit a copyright licence along with their full paper.

Contributions submitted without a completed and signed copyright licence cannot be published in the meeting proceedings or in WWRF's other publications. Abstracts do not require a copyright licence.

STUDENT GRANTS

Funding is available to support a number of students travelling to and presenting papers at the meeting. Application for student funding must be provided with paper submission. The level of grant will depend on available funds and the student's country of residence (up to €500 for students in Europe, and €800 for those resident elsewhere). Priority will be given to students from member organizations.

IMPORTANT DOCS

TEMPLATE ABSTRACT

TEMPLATE FULL PAPERS

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