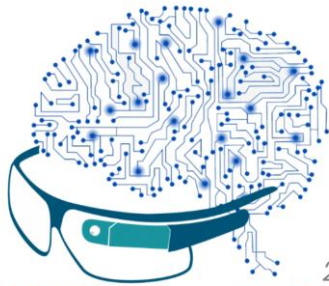




2023 IEEE INTERNATIONAL CONFERENCE ON



2023

IEEE MetroXRaine

# Metrology for eXtended Reality, Artificial Intelligence and Neural Engineering

MILANO, ITALY

OCTOBER 25-27, 2023

## CALL FOR PAPERS

The 2023 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence, and Neural Engineering (*IEEE MetroXRaine 2023*) will be an international event focused in advances in measurement methodologies, measurement systems, instrumentation and sensors and aimed at creating a synergy between experts in eXtended Reality, Brain-Computer Interface, and Artificial Intelligence.

Following the main idea of the 2022 proposal, *MetroXRaine* will be configured as an immersive collection of sessions organized by the individual members of the Scientific Committee. Round tables will be held for different projects and hot research topics. In addition to regular papers, many initiatives and opportunities such as industry sessions, exhibits, tutorials, demos, student contests, and others are planned to enhance your experience with the conference, and will make *MetroXRaine 2023* a unique event to meet with people involved eXtended Reality, Artificial Intelligence, and Neural Engineering.

### ONORARY CHAIR

Damien Coyle  
*Ulster University & University of Bath, UK*

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*University of Naples Federico II, Italy*

Loredana Cristaldi  
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*Ulster University, UK*

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## TOPICS

- ✓ Instrumental solutions and measurement principles for enhancing the accuracy and robustness of XR-BCI systems
- ✓ Display technologies and human vision
- ✓ Wearable sensors for neuroimaging
- ✓ User experience, perception, and interactions in XR and BCI
- ✓ Multisensory experiences and improved immersion
- ✓ Psychophysical condition monitoring
- ✓ Advanced machine learning techniques for XR-BCI
- ✓ Deep learning-based classification
- ✓ VR-supported mindfulness-based on EEG signals
- ✓ Immersive user experience with XR-BCI
- ✓ Human-in-the-loop AI
- ✓ Bioengineering and rehabilitation
- ✓ Biosignal processing
- ✓ Law and Ethics
- ✓ Instrumental solutions and measurement principles for smart industry
- ✓ New challenge for Metrology in the Digital transformation scenario
- ✓ Metrology at the service of the economy, society, and citizens
- ✓ Measurement science and the environment

## SPECIAL SESSIONS

Special sessions mostly aimed at creating mini-workshops on specific topics, where researchers working on the same field can meet, familiarize, exchange ideas, and create cooperation. Special sessions will be organized on specific topics, see online at <https://www.metroxraine.org/special-sessions>

## IMPORTANT DATES

Special Session Proposal Deadline: **February 15, 2023**  
Abstract submission deadline: **April 7, 2023**  
Full paper submission deadline: **May 15, 2023**  
Full Paper Acceptance Notification: **June 15, 2023**  
Final Paper Submission Deadline: **July 31, 2023**

#MetroXRaine 2023