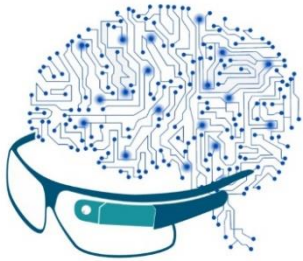


**2022 IEEE INTERNATIONAL CONFERENCE ON**

METROLOGY FOR EXTENDED REALITY, ARTIFICIAL INTELLIGENCE AND NEURAL ENGINEERING

IEEE MetroXRAINE 2022

NATIONAL RESEARCH COUNCIL (CNR), ROME, ITALY

/ OCT 26 - 28, 2022

The **2022 IEEE International Conference on Metrology for eXtended Reality, Artificial Intelligence, and Neural Engineering (IEEE MetroXRAINE 2022)** will be an international event mainly aimed at creating a synergy between experts in eXtended Reality, Brain-Computer Interface, and Artificial Intelligence, with special attention to the measurement.

The conference will be a unique opportunity for discussion among scientists, technologists, and companies on very specific sectors in order to increase the visibility and the scientific impact for the participants. The organizing formula will be original owing to the emphasis on the interaction between the participants to exchange ideas and material useful for their research activities.

MetroXRAINE will be configured as a synergistic collection of sessions organized by the individual members of the Scientific Committee. Round tables will be held for different projects and hot research topics. Moreover, we will have demo sessions, students contests, interactive company expositions, awards, and so on.

The Conference will be a hybrid conference, with the possibility of attendance remotely or in presence.

ORGANIZERS

HONORARY CHAIR

Damien Coyle, *Ulster University*

GENERAL CHAIRS

Pasquale Arpaia

University of Naples Federico II

Lucio Tommaso De Paolis,

University of Salento, Italy

TECHNICAL PROGRAM CHAIRS

Sergi Bermudez

Universidade da Madeira, Portugal

Egidio De Benedetto

University of Naples Federico II, Italy

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
- ✓ Ethics

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 are being developed by designated chairs.

Special sessions will be organized on specific topics, see online at <https://www.metroxraine.org/special-sessions>

IMPORTANT DATES

Special session proposals deadline: **January 21, 2022**

Extended abstract submission deadline: **March 18, 2022**

Extended abstract acceptance notification: **May 13, 2022**

Final paper submission deadline: **July 13, 2022**

<http://www.metroxraine.org>

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