



EUROXR

1st Call for Contributions

EuroXR 2022

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1st CfC of the 19th EuroXR International Conference, EuroXR 2022

CALL FOR CONTRIBUTIONS
19th EuroXR International Conference
 14-16 September 2022
 Stuttgart / Germany
<https://www.euroxr-association.org/conference2022/>

EuroXR Association (<https://www.euroxr-association.org/>) would like to cordially invite you to contribute to the 19th EuroXR International Conference - **EuroXR 2022** - on 14-16 September 2022 in Stuttgart, Germany.

This conference follows a series of successful international conferences initiated in 2004 by the INTUITION Network of Excellence in Virtual and Augmented Reality, supported by the European Commission until 2008 and continued as Joint Virtual Reality Conferences (JVRC) from 2009 to 2013. In 2022, the EuroXR International Conference joins forces with the VR/AR Workshop of the German Informatics Society (GI) and with the XR EXPO exhibition series of the Virtual Dimension Center (VDC). These three top formats form the XR WEEK.

Apart from annually gathering the EuroXR members for the association life, the focus of EuroXR conference is on novel VR/AR/MR technologies, including software systems, display technology, interaction devices, and applications. Besides papers on the latest scientific results and highlights from many application fields, the EuroXR conference series aims at creating a unique human-dimension framework, interconnecting European and international XR communities, for knowledge cross-fertilisations between researchers, technology providers, and end-users.

TYPES OF CONTRIBUTIONS

All contributions are organized in three main tracks, for some divided in two categories as follows.

1) **Scientific track** submissions can be:

- a) **Full papers** – either **Long** (14-20 pages) or **Medium** (8-12 pages) sizing - to be presented respectively as long or short talks during the **scientific talk sessions**: such submissions target original, unpublished works documenting new research, practices and experience, novel applications in VR or AV/AR/MR, or sound States of the Arts on challenging research questions in that field.
- b) **Short papers** (4-6 pages) to be presented during the **scientific poster sessions**: such submissions target works in progress or other scientific contributions including ideas for unimplemented and/or unusual VR or AV/AR/MR systems.

All scientific paper submissions must be in one-column Springer format, and indicated paper lengths do not include references.

The **Scientific Program chairs** will be in charge to select the accepted contributions of the both above categories, thanks to a double blind peer reviewing process among an **International Program Committee** (IPC). All accepted scientific papers will be published with the sizing (Long/Medium or Short) corresponding to their categories in the Scientific proceedings of

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[EuroXR 2022](#), edited by Springer as a volume of the **Lecture Notes in Computer Science (LNCS)** series. For your convenience, **indexing** information of LNCS series is available on this [Springer webpage](#).

2) Application track contributions can be:

- a) **Application talk** (2-4 pages abstract): best practices, practical use cases of VR or AV/AR/MR, project results of applications using such technologies in industry and other sectors, actual or potential transfers of academic results, and position papers.
- b) **Application poster** (2-4 pages abstract): recently completed VR or AV/AR/MR applied work, application in progress, or unusual applications.

For this track, the **Application Program chairs** will manage the full review/acceptance process of two types of contributions (Application talk vs. Application poster).

3) Demo & Exhibition track (2-4 pages abstract): live demonstrations of past and on-going projects. Technology developers and suppliers, exhibitors, digital artists, and members of the commercial VR or AV/AR/MR communities are all invited to exhibit and demonstrate the latest technologies and applications.

For this track, the **Demo & Exhibition chairs** will manage the full review/acceptance process of this type of contribution.

Moreover, we highly encourage all authors submitting any kind of contribution to categories 1.a, 1.b, 2.a or 2.b, to also submit a live demonstration with a related abstract to this Demo & Exhibition track.

All accepted abstracts for **Application track** and **Demo & Exhibition track** will be published in the [Application & Demo proceedings of EuroXR 2022](#) as an ISBN-registered volume edited by **VTT Technical Research Centre of Finland Ltd.**

JOURNAL INVITATION AND AWARDS

Authors of some selected contributions, chosen by a special committee structured according to the categories of the Scientific and Application tracks, will be invited to submit an extended version to the **open access journal “Frontiers in Virtual Reality”**.

Last but not least, based on the work of the same special committee, best awards will be decided for each contribution category within each track. More information on the EuroXR best awards procedure will be available soon on the EuroXR 2022 website, as well as the winners of previous years.

SUBMISSION GUIDELINES

For all categories of the **Scientific track**, a [double blind peer reviewing process](#) will be applied. Submissions have to be uploaded via the [Online Conference Service \(OCS\)](#) of Springer. Information on the OCS page will appear soon in the detailed submission guidelines of this track:

<https://www.euroxr-association.org/conference2022/submission-guidelines-for-scientific-track/>

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For all categories of the **Application track** and for **Demo & Exhibition track**, submissions are managed by [EasyChair](#). Information will be available soon in the detailed submission guidelines of these tracks:

<https://www.euroxr-association.org/conference2022/submission-guidelines-for-application-track/>

TOPICS OF INTEREST include, but are not limited to:

Human factors issues

- User studies on all topics related to XR
- Presence, realism, validity and fidelity
- 3D user interfaces and/or 3D interaction metaphors
- Self-representation and embodiment, avatars, virtual humans
- Cybersickness and side effects
- Cost effectiveness and cost efficiency
- Ethical procedures and guidelines
- Cybersecurity, data protection and other legal issues

Technologies

- XR system architecture
- Collaborative and distributed XR
- Augmented Reality and mobile devices
- Augmented Virtuality and tangible interfaces
- Mixed Reality
- Tracking and motion technologies
- Advances in display technologies
- Image-based 3D modeling and rendering
- Realistic rendering of dynamic or complex scenes
- 3D audio rendering and related technologies
- Haptics and force-feedback, algorithms, systems, and devices
- Real-time modeling & simulation
- Multimodal interaction in immersive environments
- Immersive collaboration: technologies, use cases, management
- Immersive analytics: interactions, models, architectures
- Artificial Intelligence for XR
- Virtual humans for XR

Applications

- Industrial applications
- Aerospace and Transport
- Construction and Architecture
- Manufacturing and Engineering
- Consumer neuroscience
- Organizational neuroscience

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- Medicine and Rehabilitation
- Product and Process design
- Robotics
- Training and Education
- Cultural heritage
- Creative Practice
- Serious Gaming and Edutainment

MAIN DEADLINES

For the **Scientific track**, contributions deadlines are:

- All Scientific submissions (Full & Short papers): **April 25, 2022**
- Notifications to the authors for all Scientific submissions: **June 13, 2022**
- Camera ready for all Scientific contributions: **July 4, 2022**

For the **Application track** and the **Demo & Exhibition track**, contributions deadlines are:

- Short abstract submissions for all related categories: **July 4, 2022**
- Notification to authors for all related categories: **Jul 25, 2022**
- Camera ready for all related categories: **Aug 1, 2022**

Conference days: **September 14-16, 2022**

COMMITTEES

General Chairs

Christoph Runde (Virtual Dimension Center VDC)
Kiyoshy Kiokawa (Osaka University, Japan)
Frank Steinicke (University of Hamburg, Germany)

Scientific Program Chairs

Mariano Alcaniz Raya (Immersive Neurotechnologies Lab, Spain)
Patrick Bourdot (University Paris-Saclay, CNRS, LISN, VENISE team, France)
Maud Marchal (IRISA-INSA Rennes, France)
Jeanine Stefannuci (University of Utah, USA)
Xubo Yang (Shanghai Jiao Tong University, China)
Gabriel Zachmann (University of Bremen, Germany)

Application Program Chairs

Arcadio Reyes-Lecuona (University of Malaga, Spain)
Manfred Dangelmaier (Fraunhofer IAO, Universität Stuttgart IAT, Germany)
Kaj Helin (VTT, Finland)
Jérôme Perret (Haption, France & Germany)
Nicholas Polys (Virginia Tech, USA)
Wolfgang Schäfer (ZHAW School of Management and Law, Switzerland)

Demo and Exhibition Chairs

Frédéric Noël (Grenoble Institute of Technology, France)
Matthieu Poyade (Glasgow School of Art, UK)

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Giannis Karaseitanidis (ICCS, Greece)

Kayvan Mirza (Optinvent)

Organization team

VDC - Christoph Runde, Diána Kretschmar, Ioannis Alexiadis, Vitor Macedo, Jonas Gröpl

EuroXR - Patrick Bourdot, Mariano Alcaniz Raya, Arcadio Reyes-Lecuona, Frédéric Noël, Gabriel Zachmann

COVID-19 CONTINGENCY PLAN

In case a physical attendance of the conference will not be feasible (due to Covid-19), we will publish all accepted papers as stated above, and we will hold a virtual conference that will allow all authors to present their work.