

Workshop on "Visual Analytics in Immersive Environments (VAinIE)"

to be held in conjunction with the 2022 IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2022)

ABSTRACT

Immersive analytics has become a significant research field with applications in natural sciences, in contexts that require users' exploration and understanding of three-dimensional spatial data. Yet, working in three dimensions is particularly challenging due to crowded, occluded, or even undefined 3D structures. Thus, exploratory visualization in immersive environments has attracted researchers' attention. Many questions remain to be explored and answered in this field, for instance, effective visualization techniques for large-scale and complex data, efficient interaction interface and techniques, collaboration structures of immersive visualization environments, such as task sharing, collaboration patterns, awareness visualization cues and communication.

The goal of the VAinIE workshop is to provide an opportunity for researchers from Visualization, HCI, VR/MR/AR fields to submit their original ideas, work-in-progress contribution, and position papers on the design, and/or evaluation of innovative visual analytics, interactive visualization and spatial interaction techniques. We are interested in theoretically, and/or methodologically oriented contributions focused on situated visualization and interaction design, and collaborative analytics. We would also like to receive contributions on applications and case studies using such techniques for exploring large-scale, complex 3D data.

TOPICS OF INTERESTS

The workshop solicits submissions of the unpublished works on topics including (but not limited to) the following applications and emerging topics in Visual Analytics for Immersive Environments:

- Visual encodings and representations
- Visualization techniques
- Immersive visual analytics
- Collaborative interfaces
- Collaborative analysis
- Multimodal input and output

- Human-computer interaction
- Touch, tangible and gesture interfaces
- Mixed Reality Powered by Artificial Intelligence
- Data-driven storytelling in VR/AR/XR
- Display technologies (e.g., eyewear, smart watches, projectors)
- AR/MR/VR and Visualization applications from domains include, but not limited to:
 - Sports
 - Education
 - Entertainment
 - Health and medical applications
 - Industrial and emergency response
 - Astronomy
 - Biology

Selected papers will be recommended to a special issue hosted by [Visual Informatics](#). These revised papers are expected to have 30-40% new materials and will be reviewed by the same reviewers from the technical committee to allow for a fast review process.

IMPORTANT DATES

- **Papers submission:** July 18th, 2022
- **Notification of acceptance:** August 8th, 2022
- **Camera-ready copy:** August 31st, 2022
- **Workshop date:** October 17th/21st, 2022

Each deadline expires at 23:59:59 UTC-12 (AoE)

SUBMISSION

We welcome paper submissions from 4-8 pages, excluding references. Paper quality versus length will be assessed according to a contribution-per-page judgment. All submissions will be accepted or rejected as workshop papers.

All accepted papers will be archived in the IEEE Xplore digital library.

Detailed submission and review guidelines are available on the workshop website at that link: <https://ismar2022.org/journal-submission-guidelines/>. All paper submissions must be in English.

All paper submissions must be done through PCS using that link: <https://new.precisionconference.com/ismar22>.

ORGANIZERS

- Hai-Ning Liang (Xi'an Jiaotong-Liverpool University)
- Lingyun Yu (Xi'an Jiaotong-Liverpool University)
- Pourang Irani (University of British Columbia)
- Yingcai Wu (Zhejiang University)