

**Call for Papers:
First Workshop on Photorealistic Image and Environment Synthesis for Mixed
Reality (PIES-MR)**

The First Workshop on Photorealistic Image and Environment Synthesis for Mixed Reality (**PIES-MR**) will engage experts and researchers on the synthesis of photorealistic images and virtual environments, particularly in the form of public datasets, software tools, and infrastructures, for mixed reality (MR) research, including both augmented reality (AR) and virtual reality (VR). Such public datasets, software tools, and infrastructures will enable researchers to better investigate how photorealism affects MR, AR, and VR experiences. Additionally, such openly available assets should enable easier creation of such photorealistic environments for developers. Photorealistic image and environment synthesis can benefit multiple research areas in addition to MR, such as machine learning, robotics, human perception, and multimedia systems.

The **topics of interest** include but are not limited to:

- 360° image/video capture
- 360° image/video playback
- Automated/semi-automated reconstruction
- Environment capture/scanning
- High-polygon mesh representations
- Image/video capture
- Image/video playback
- Point cloud representations
- Real-time raytracing
- Simultaneous localization and mapping (SLAM)

Contribution Types

The following types of contributions will be considered for PIES-MR:

- Research, review or position papers: 4-6 pages excluding references
- Demo / practical papers: 2-4 pages excluding references, plus a video up to 5 minutes.

Submission Guidelines

Authors are invited to submit original contributions. The workshop's papers will be published in ISMAR 2022 adjunct proceedings and IEEE Xplore. Accepted papers must be formatted using the [IEEE Computer Society VGTC format](#).

All submissions must be done electronically via PCS:

<https://new.precisionconference.com/user/login?society=ismar>

Important Dates

Submission deadline: Friday, July 29th, 2022 (23:59 AoE)

Result notification: Monday, August 8th, 2022

Camera-ready deadline: Friday, August 26th, 2022 (23:59 AoE)

Organizers

Charlie Hughes, University of Central Florida

Jeanine Stefanucci, University of Utah

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