

Virtual Reality (Springer)

Special Issue on "Models for Mixed and Augmented Reality"

Deadline extension to March 14

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New submission deadline : March 14, 2011

Aims and Scope

Virtual Reality invites original research articles to a special issue on "Models for Mixed and Augmented Reality". Springer VR is an international journal dedicated to Virtual Reality and related topics. (<http://www.springer.com/computer/image+processing/journal/10055>)

Mixed reality (MR) or Augmented reality (AR) is a user interface technology that combines perception of real environments with digital, virtual information. Often this is achieved in real-time as a combination of images of the real environment with computer graphics. To achieve convincing and believable combination of the real and the virtual, a MR or AR system requires a detailed and accurate model of the real scene and the virtual information.

This requirement motivates research on the creation, acquisition, editing and integration of multi dimensional models that may include graphical and/or semantic information. While there is much work on individual aspects of creating models of the real world and virtual objects, the specifics of AR, applications such as real-time operation, interactivity and user input, require further research to be adequately addressed.

This special issue of the journal on "Models for Mixed and Augmented Reality" will encourage discussion about the application of 3D models in the field of AR, covering topics in a wide range of areas, including:

- Online Reconstruction
- Simultaneous localization and tracking (SLAM)
- Interactive Reconstruction
- User Interfaces for Annotations and Modelling
- User Generated Content in AR
- Scalability of reconstruction frameworks from small workspaces up to urban environments
- Dynamic scenes and change
- GPU methods
- Computational considerations of modelling approaches
- New Sensors: Depth cameras, stereo cameras, laser range finders, projector-camera systems
- Semantic information
- Integration of online systems - social networks, community sites
- User generated content
- Mobile devices
- Rendering in AR
- Mixed and diminished reality applications

- Industrial settings and applications

Whilst the special issue editors want to encourage potential authors to think creatively about applications of their research to create better and more compelling model-related applications, it is important to note that papers will only be considered if they demonstrate a strong connection and relevance to mixed and/or augmented reality.

Author Instructions

For formatting and submission guidelines, please follow the Instructions for Authors on the journal web page. Paper length must be appropriate to the level of contribution. Please use the 'submit online' process for submissions to the Special Issue named "SI: Mixed and Augmented Reality".

<http://www.springer.com/computer/image+processing/journal/10055>

Important Dates

Paper submission:	March 14, 2011
Initial decisions to authors:	May 30, 2011
Revised version submitted by authors:	July 1, 2011
Final decision to authors:	September 1, 2011
Camera-ready version:	October 1, 2011

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