

CALL FOR PAPERS - Web3D 2019

The 24th International ACM Conference on 3D Web Technology

July, 26-28th, 2019, Los Angeles, USA

Sponsored by ACM SIGGRAPH; In Cooperation with The Web3D Consortium and EuroGraphics

<http://www.web3d2019.org/>

Paper submission:	March 18, 2019
Tutorial & Workshop submission:	April 1, 2019 (First Monday of April)
Demonstration submission:	May 6, 2019 (First Monday of May)
Posters submission:	May 6, 2019 (First Monday of May)
Industrial use cases submission:	June 3, 2019 (First Monday of June)
H-Anim competition:	June 3, 2019 (Winners announced at the Conference)
Tutorial/workshop acceptance:	May 6, 2019
Paper/poster/demo acceptance:	May 13, 2019
Camera-ready paper/poster/demo:	May 27, 2019

The 24th International ACM Conference on 3D Web Graphics and Interactive Technology (Web3D 2019), organized in cooperation with the Web3D Consortium, will address an extensive range of research, development, and practice related to web-based interactive 3D applications. The goal of the conference is to share innovative and creative ideas that enable development of 3D applications for a wide range of 3D environments, including the web, mobile as well as virtual and augmented reality (XR) setups. Works related to various application domains, including education, healthcare, e-commerce, informatics, cultural heritage/tourism, entertainment, mass media, military, and construction (and many others) are welcome.

This year's theme "**3D for Everyone**", the next leap for the 3D Web, emphasizes the increasingly global scope and wide impact of current and future 3D technology on large parts of society. The Web3D community seeks to foster and support the increasing **development, use, and utility** of 3D technologies by application developers, domain experts, as well as for end users. This includes the creation of interactive 3D content, robust and versatile 3D content representation and delivery standards, as well as presentation and interaction techniques enabling the development of user-friendly 3D applications on the Web.

Topics and areas for submission: Use the following list of the topic areas as a reference rather than a limitation. We welcome all topics related to Web/mobile 3D content creation, publishing technology, tools, and related studies.

For web3D application developers: *novel technologies, tools, middleware*

- VR/AR/XR
- 3D content creation and modelling, 3D content scanning/ reconstruction
- Novel APIs, toolkits, and frameworks for 3D web and associated application domains
- AI on Web 3D

- Cloud-based rendering and services for large-scale models, animations, and virtual worlds
- Streaming, compression, and transmission of 3D content
- Virtual humans, avatars, and complex reactive characters
- Motion capture for composition and streaming of behaviors and expressions
- HTML5 3D, WebGL, gITF, and other languages that support the 3D Web

For domain experts: *new platforms standards capabilities*

- Algorithms for shape modeling, compression, optimization, analysis, and processing
- Novel APIs, toolkits, and frameworks for 3D Web and associated application domains
- Semantic Web for 3D objects and scenes
- X3D application examples

For web3D users:

- Multi-modal 3D interaction paradigms, including spatial UI, gesture, and voice
- Visual analytics based on 3D Web technologies
- Diffusion and adoption of 3D Web technologies, comparative studies, historical perspectives, WWW integration
- Novel interactive 3D web applications in all areas and sectors such as entertainment, education, training, cultural heritage, medicine, military, smart-manufacturing / industry 4.0, information & data visualization, science, geographic information systems, digital globes, subsurface exploration and mining, integrated marine data management and visualisation, building information modeling (BIM), and architecture.
- Web3D/Mobile 3D applications and usability studies, navigation performance, immersion impact

The accepted papers and poster summaries will be published in the Web3D 2019 Conference Proceedings, available in the ACM Digital Library, and indexed by SCOPUS.

SUBMISSIONS

PAPERS presenting original work in 3D web research and application may be submitted in a long or short form (up to 9 or 4 pages, EXCLUSIVE of the page(s) devoted to bibliographic references and short appendices). Do include a full citation list. Submissions will be peer-reviewed. Accepted papers will be included in the ACM Digital Library and submitted to major indexing services, such as Web of Science, DBLP, and Scopus.

POSTERS present results of ongoing or recently completed work in 3D web research and application. The poster format offers the opportunity to interactively present and discuss interesting results to the Web3D community. Posters should be submitted in the form of abstracts (2 pages), which after acceptance will be published in the conference proceedings. There will be an option to augment the poster electronically at the session [CHECK]. Accepted posters have the option of being presented in the general SIGGRAPH Poster Session.

TUTORIALS are an opportunity to present introductory and advanced applications of 3D

web technologies to students and to experienced practitioners. Tutorial subjects can include practices for authoring interactive 3D scenes and in using 3D graphics in diverse application areas. Especially welcome are tutorials in the use of open-source software and web applications, which can be presented in hands-on sessions at the conference.

WORKSHOPS provide a forum for researchers and practitioners from both the web and 3D multimedia communities to discuss and exchange positions on current and emergent 3D web topics. Workshops may take the form of presentation sessions moderated by workshop organizers or open discussions of new knowledge on a specific topic of interest.

DEMONSTRATIONS enable artists, content designers, and developers to share their innovative 3D works at the conference. Artworks and applications developed for various platforms, including the web, desktop, mobile and VR/AR systems, are welcome. Demonstrations should be submitted in the form of short descriptions (2 pages), which after acceptance may be published in the conference proceedings.

INDUSTRIAL USE CASES enable practitioners to demonstrate how 3D web technologies may be used in industrial applications. A special track during Web3D 2018 will be devoted to industrial use cases to share inspiration, best practice and requirements of using 3D in various application domains.

COMPETITION (H-ANIM) This annual competition is dedicated to showing how H-Anim and X3D graphics standards can be used for creating animated music videos. The competition is organized by the Korean Standards Association (KSA) and Web3D Consortium. For competitors, attendance at the conference is not mandatory, but is encouraged.

Questions about the program and conference topics can be sent to program@web3d2019.org. Please visit the website for more opportunities, submission instruction, and information about the Web3D 2019 Conference: <http://www.web3d2019.org/>