

Guest Editors

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A ugmentation implies pushing boundaries and going beyond the ordinary, for instance to provide greater degrees of freedom or access to new information. Participation is concerned with the role and engagement of agents in processes or situations. In this special issue, we invite studies applying these concepts to sound and music interaction using semantic audio technologies. Augmentation and participation both have strong design implications for interactive audio systems as they require an enrichment or rearticulation of affordances and agency. For instance, the gestures of a drummer could be the source of accompanying visualisations, or an audience could be given a creative role during a performance. Central to systems of this kind are semantic audio technologies situated at the confluence of signal processing, machine learning, and data and knowledge representations. Together with sensors, wearables and web frameworks, they provide a range of information processing techniques and design media with which to explore augmentation and participation. Associating meaning to audio and contextual signals has the potential to create new opportunities for stakeholders in the production-consumption chain, to enable interaction with audio in human terms, and to facilitate new connections between computer representations of sound and music and the physical world. We also encourage authors to evaluate and discuss to what extent novel augmented and/or participatory systems affect user experience and emotional response at the individual or social level. This special issue is motivated by the success of the Audio Mostly 2017 conference (AM'17) themed "Augmented and Participatory Sound and Music Experiences". Original papers presenting unpublished work related to research on—but not restricted to—the topics listed below are invited for consideration, including significantly extended work that was presented at AM'17.

PROPOSED TOPICS

- Systems for augmented and/or participatory composition and performance
- Semantically-enhanced human-computer interaction
- Novel interfaces for sound design, audio engineering and post-production
- Auditory display and data mining using sonification
- Smart musical instruments and the Internet of Musical Things
- Gestural interaction with sound or music
- Biosensors and wearables for sound and music interaction

- Intelligent navigation in audio libraries and recommendation
- Augmented and virtual reality with or for sound and music
- Affective and human-centred computing applied to sound and music
- Intelligent music tutoring systems and games
- Signal processing, machine learning and semantic analysis for interactive audio applications
- Health, accessibility and industrial applications
- Evaluation, user studies, co-design and experience design methodologies

AUTHOR GUIDELINES

Please submit complete 6 to 8-page papers by **November 12, 2017**. All submissions will be peer-reviewed according to standard JAES review procedures. We welcome original research including revised and expanded versions of "Audio Mostly 2017" or AES conference papers addressing the theme of this special issue. Please follow the Author Guidelines found at: <u>http://www.aes.org/journal/authors/guidelines/</u>. Papers should be submitted online at: <u>http://www.aes.org/journal/submit/</u>. When submitting a paper, please choose the category "Special Issue (Augmented and Participatory Sound and Music Interaction using Semantic Audio)" rather than Research Paper or Engineering Report. This special issue is planned to be published in early 2018, therefore a tight reviewing and revision schedule will be in place.