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Psychoacoustics for Extended Reality (XR)

Guest Editor:

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Deadline for manuscript submissions:
closed (31 January 2022)

Message from the Guest Editor

Extended reality (XR), which embraces the concepts of virtual reality, augmented reality and mixed reality, is a rapidly growing area of research and development. XR technologies are now being adopted in many sectors of the industry. XR ultimately aims to provide the user with realistic, engaging and interactive virtual experiences in 3-degrees-of-freedom (3DOF) or 6-degrees-of-freedom (6DOF), and for this, it is important to achieve the high-quality dynamic rendering of audio as well as visual information.

This Special Issue aims to introduce the recent development of psychoacoustics-based research focusing on XR and provide insights into future directions of research and development in this field.

- Dynamic sound localisation
- Auditory spatial perception
- Binaural processing with head-tracking or/and motion-tracking
- Auditory-visual interaction/multimodal perception
- Rendering and perception of virtual acoustics
- Sound recording and mixing techniques
- Sound synthesis and design
- Interactive and immersive storytelling
- Hearing aid
- Assistive listening
- Auditory(–visual) simulation and training

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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