



Journal of the AUDIO ENGINEERING SOCIETY CALL for PAPERS



SPECIAL ISSUE ON Dereverberation and Reverberation of Audio Music and Speech

Guest Editors

Stefan Goetze, Fraunhofer IDMT, Germany

Ann Spriet, NXP Software, Belgium

Toon van Waterschoot, KU Leuven, Belgium

Reverberation is the phenomenon where the physical and perceived structure of an audio signal is altered due to a multitude of successive acoustic reflections in a closed space such as a room, a hall, or a car interior. Reverberation is the key acoustic feature that makes one particular concert hall sound better than other ones. It is also used as a trademark by musicians and audio producers, who use reverberation to create a spacious and personal sound in music recordings. On the other hand, higher amounts of reverberation may degrade performance of automatic speech recognition or other audio classification systems, and may cause hearing aid users to encounter problems in localizing and understanding target speakers. It is also one of the main causes why public announcements in large venues like train stations are often insufficiently comprehensible. In applications where speech is captured with distant microphones, such as acoustic surveillance or hands-free communication, reverberation may have a detrimental effect on speech intelligibility and speech quality.

During the last few decades, the (de)reverberation problem has gained more and more interest in different scientific communities related to audio engineering, more specifically room acoustics, psychoacoustics, signal processing, and machine learning. The aim of this special issue is to publish the latest research results in the areas of modeling, control, removal, and synthesis of acoustic reverberation. Original papers presenting unpublished material relating to research in, but not restricted to, the topics listed below are invited for consideration for the special issue.

PROPOSED TOPICS

Room modeling, measurement, and simulation

Artificial reverberation synthesis

Perception of reverberation

Spatial sound

Sound field reproduction

Applications of spatial and reverberant audio processing

Speech enhancement

Beamforming

Room equalization

Robust automatic speech/speaker recognition

Perceptual evaluation of dereverberation algorithms

Applications of dereverberation

Instrumental measures for reverberation and

dereverberation

AUTHOR GUIDELINES

Papers should be submitted by March 31, 2016 according to the JAES Author Guidelines. The paper length should not exceed 8 pages in the final publication layout (two-column, single-spaced). All submissions will be peer reviewed according to standard JAES review procedures. Authors who wish to submit already-published AES conference papers relating to this topic may do so provided that they are revised and expanded as stated in our Author Guidelines found at: <http://www.aes.org/journal/authors/guidelines/>. Papers should be submitted online at: <http://www.aes.org/journal/submit/>. When submitting a paper, please do so under the article category "Special Issue (Dereverberation and Reverberation of Audio, Music and Speech)" rather than "Research Paper" or "Engineering Report." The target publication date for this special issue is January/February 2017, and a strict reviewing and revision schedule will be introduced to this end, although this date is subject to possible change.

For more information contact

Guest Editors

Stefan Goetze <s.goetze@idmt.fraunhofer.de>

Ann Spriet <ann.spriet@nxp.com>

Toon van Waterschoot <toon.vanwaterschoot@esat.kuleuven.be>