

AES Technical Committee on Spatial Audio

Notes from the meeting of the TC at the 131st AES Convention, New York

Date: 21.10.2011, 14:00-15:00

Chair: Sascha Spors and James Johnston

Participants:

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New chair

Ville Pulkki has handed over his position as European chair of the TC on Spatial Audio to Sascha Spors. He introduced himself in the meeting.

Activities at the 131th AES Convention related to the TC

A workshop entitled “Panning for Multichannel Loudspeaker Systems” has been chaired by Ville Pulkki. As panellists Jan-Mark Batke, Craig Jin and Sascha Spors have been invited. The workshop discussed the foundations of amplitude panning, as well as a number of practical aspects and recent developments. The discussions in the panel were focused around the question if it is possible to overcome the sweet-spot limitation without introducing too much coloration. The slides of the workshop will be uploaded to the TC website.

Upcoming events

The following upcoming events have been announced by the chairs/participants:

- International Conference on Spatial Audio, Detmold, 10. - 13. November
- Applications of Time-Frequency Processing in Audio, 45th International Conference, Helsinki, Finland, March 1-4, 2012
- 132nd Convention, Budapest, Hungary, April 26-29, 2012
- International Symposium on virtual acoustics, November 2012

High Definition Spatial Audio Initiative

An informal meeting, organized by Jürgen Peissig from Sennheiser, has taken place outside of the TC meeting. The intention was to discuss various technical aspects of multichannel spatial

audio related to workflow, storage, transmission and metadata. Thomas Sporer and Jürgen Peissig gave a short summary of the topics discussed at the meeting.

Various groups have participated and concluded that the overall topic is interesting. The motivation for defining a new protocol for metadata related to spatial audio is that more intelligent microphones/ loudspeakers will be developed in the future that will be able to generate metadata (position, etc.) in order to aid the audio production process. The idea is not to stop at the XLR interface to facilitate for instance down-mixing and pre-processing in digital audio workstations. Another issue is the foreseeable transition to a more object-orientated production process that copes better for the multitude of spatial audio techniques that might be present in the future. Potential standardization bodies for such a new format have been discussed. Plans for the near future are to take a close look at existing formats like the Audio Scene Description Format (ASDF), SpatDiff and others.

Proposals for upcoming Workshops/Tutorials

- Workshop “Open questions in psychoacoustics in spatial audio” (Thomas Sporer)
- Workshop “Height recording and reproduction for WFS, HOA, Auro3D, VBAP, ...” (Frank Melchior/Florian Völk)
- Workshop/Tutorial “Trends in spatial audio for games” (Michael Kelly)
- Workshop/Tutorial “How to listen to spatial audio?”
- Workshop/Tutorial “Production for cinema/home cinema”

Spatial Audio Glossary

The idea of a spatial audio glossary came up at the last TC meeting in London. A glossary of common terms is planned to be formed including explanations of the most-used meanings. Recommended terms and meanings will be compiled by the TC. A Wiki has been set-up at the TU Berlin so far, in order to aid in the process of collecting terms and their meanings. The Wiki is currently only accessible to registered users. A login can be requested by contacting Sascha Spors. Informations will also be send to the reflector of the TC.

Upcoming Trends Report

The Technical Council has requested a report on emerging trends in spatial audio. During the meeting a number of trends have been identified

- 3D audio for (home) cinema
- height recording/production/reproduction/upmixing
- object-oriented audio
- spatial audio for games
- spatial audio for mobile devices

The TC will compile a report out of this list. The trends of the last (outdated) report will be discussed critically as well.