

AES Technical Committee on Spatial Audio

Notes from the meeting held in London at the 128th Convention May 22-25, 2010

Chair: Ville Pulkki

Attendee Introductions and Interests - Attendees had an opportunity to introduce themselves and express their interest in the Spatial Audio TC, and identify what the main issues and emerging trends are in this area. There was representation from the academic institutions, audio coding industry, Film TV/Production, and from smaller-scale audio industry. There was about 10 attendees. Unfortunately the participant list has been lost somewhere between London and Helsinki.

Proposals for Upcoming Workshops/Tutorials

At the meeting there were some discussions for AES129, but nothing definite came out there. However, after the meeting Chris Faller suggested that the workshop on time-frequency processing of spatial audio, which was held in AES128 should be redone in AES129. Right after the AES128, the workshop was submitted to AES129 by Ville Pulkki.

There were few ideas of workshops for AES130th convention. Damian Murphy had an idea to make a workshop on connections between auralization and spatial audio technologies. Thomas Sporer proposed workshop topic on common language between different spatial sound recording and reproduction methods.

A workshop was also proposed on practical issues of compressing multichannel audio content for broadcasting.

Proposals for Upcoming AES Conferences

Bike Suzuki described the progress of the AES 40th international conference proposal with title "Spatial Audio - Sense the sound of space", which happens in October 2010 in Tokyo.

Ville Pulkki described the final proposal for international conference on "Applications of Time-Frequency Processing in Audio". The conference is targeted to cover different audio

applications of time-frequency processing, including spatial audio, audio analysis and effecting, and coding of audio. If the conference is finally approved, it will happen in Helsinki, Finland, year 2012.

Ambisonics Symposium

Franz Zotter made a short report on Ambisonics Symposium which happened in Paris, France May 2010. The subject matter is on different issues in higher-order Ambisonics.

Discussion on the AES standard on capture/reproduction metadata

This idea was introduced in TC meeting in AES126. Ville Pulkki wrote a white paper in autumn 2009, which circulated in the TC. The metadata would describe the recording setup for later use in mixing or processing. The information would be stored in the level of details that the user sees appropriate. Thomas Sporer told that he met Mark Yonge from AES Standardization, who told that such a standard is in progress just now. Ville Pulkki contacted after AES128 Mark Yonge, who described the project as follows: "AES-X155, 'AES standard for audio metadata - Production recording metadata set (iXML)'. This project is being handled by working group SC-03-06. Latest status is published at: <http://www.aes.org/standards/meetings/project-status.cfm> - just search for "x155". The primary motivation for this project is to handle the increasingly complex, but traditionally informal, information about what the sound recordist is providing to post production and editorial. It includes various stereo and multichannel modes, among other things." Based on this information, it seems that this standard would be just what is needed for the tasks that the TC was thinking of.

After Thomas told that the standard might be already on its way, some possible uses to the standard were described. For example, in recording it would be beneficial to measure the exact positions of the microphones. It was hypothesized that the 3D positions could be measured by measuring the distances between the microphones by playing some test sequences with a small sound source from different positions around the microphone setup and by using some cross correlation between recorded signals