



AES Technical Committee on Loudspeakers and Headphones

Meeting Report:

AES 139th, New York, 31/Oct/15

Chair: Steve Hutt

Mission of the Loudspeaker and Headphone Technical Committee.

The committee works to ensure that the AES membership has the opportunity to learn of relevant new transducer technology as it develops, with an emphasis on sound field generation from loudspeakers and headphones.

Introduction:

The LH committed discussed some general topics relative to our common interests of loudspeakers and headphones. Much of the conversation revolved around the Headphone conference planned for August 2016 in Aalborg, Denmark. Meeting highlights follow in bullet form.

Trends.

- ESL headphones
 - Shure showed an in ear electrostatic earphone.
- Micro speakers
 - there is some convergence of micro drivers to headphones.
- TV sound improvements - sound bars.
 - THAT corp has developed a closed loop processing based on the transducers. There may be more developments “trending” in this challenge to provide decent sound as televisions become shallower & have less tolerance to extraneous outer boundaries allocated to transducers.

Headphones:

- John Woodgate discussed European regulator commission review 50332.1 players with headphones, 50332.2 players & headphones sold separately.
 - called up in IEC multimedia IEC 62389-1 standard adopted in Europe, Australia, China & others

- addressing sensitivity, maximum SPL.
- took more than 10 years to develop
- 2nd edition is considered usable but still in continuous improvement.
- measurement is difficult but being addressed.
- Accumulated exposure: in time, automated attenuation.
- a related standard is in UL

Workshop Concepts:

- The topic idea proposed by Hans van Maisel in Warsaw was discussed:

Hans van Maisel suggested a workshop on time domain measurement and analysis. How to read an impulse response, waterfalls, wavelets etc. and how to understand group delay, phase wrapping and even minimum phase attributes and how these factors correlate to perceived system performance.

Hans has offered to support for the 140th.

Please post comments to the reflector.

2016 AES International Conference on Headphone Technology

- Dates: August 24-26, 2016
- Location: Aalborg, Denmark
- Chairs: Dr. Sean Olive & Patrick Hegarty
 - (2016HP_chair@aes.org)
- Patrick provided an overview from the committee on status, planned activities etc.
 - Ideas for paper topics:
 - listening assistance, hearing aids etc.
 - signal processing
 - in general all related applications to headphones.
 - new suggestions are encouraged.
 - Denmark, Aug 2016
 - hotels within walking distance of venue.
 - call for papers is out.
 - due 16 March 2016
 - full 4-8 page papers for review before acceptance
 - final revision due by 15July16
 - workshop or demos due 31/May/16
 - cost {conference only}
 - 575 euro for member
 - 280euro for student

- budgeted for 68 people makes it 20% profit
- workshop ideas:
 - Todd suggest headphone position & leakage.
 - regulatory discussion.
 - John will work with Patrick to introduce committee coordinator.

Standards:

- Discussion:
 - Maybe TCLH should work with AES standards to develop a position and perhaps some headphone standards, but a review of the "IEC 60268-7: Headphones and earphones" standard is in order. If you are interested, please have a look at the IEC 60268-7.

Attendees:

Name	Affiliation	email
Steve Hutt	chair SC04-03	hutt.steve@gmail.com
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Next meeting:

140th AES, 4-7 June 2016, Paris, France