



## AES Technical Committee on Loudspeakers and Headphones

### Meeting Notes:

AES 14<sup>2nd</sup> Berlin, 21/May/17 11:00

Chair: Steve Hutt

Vice-chair: Juha Backman

#### Attendees:

- 21 Colleagues attended the meeting.

#### Trends:

- Micro speakers
  - the trend towards wireless was raised with questions of bandwidth & whether USB – C & lightning bolt will continue to be available. USB – Type C standard was just released w/21/17.
- Headphones
  - Continue to grow with numerous variants.
  - VR is expanding the potential headphone market.
- Hi Resolution Audio
  - The trend of Hi Res Audio has an interest and impact on loudspeakers and headphones.
  - A workshop is planned for 143<sup>rd</sup> in New York (see below)

#### Workshops:

- 142<sup>nd</sup> May/17.
  - Time domain measurement and analysis.
    - Hans van Maanen. Mike Turner & David Griesinger presented an excellent workshop.
    - Time response and temporal resolution are controversial topics in sound reproduction. In this workshop a theoretical analysis will be accompanied by the results of listening experiences on the lower end of the audio range and at the

higher end. The background is that the temporal relation between the different tones, which make up complex sounds like attacks, need to be conserved to create a viable reproduction of the original sound. Many systems do not preserve a correct time relation (e.g., cross-over filters in loudspeakers, base-reflex systems, and reconstruction filters in digital audio). The aim is to identify the audibility of such timing errors.

- 143<sup>rd</sup> Oct/17.
  - Hi Resolution Audio – Loudspeakers & Headphones
    - Andy Lewis is organizing this workshop to explore Hi Res Audio & its relevance to loudspeakers & headphones at the 143<sup>rd</sup>.

#### Conferences:

- 2017 AES International Conference on Automotive Audio will take place 8-10/Sep/17 in Burlingame, CA, USA
  - <http://www.aes.org/conferences/2017/automotive/>

#### Standards Liaison:

- IEC 60268-21 is progressing with development of Part B, systems.
- SC04-03:
  - AES2-2012, to be re-affirmed Oct/2017. Discussions of recommended edits & updates for a revised version target 2018 has begun. Please be sure to join SC04-03 to participate.
  - x241 End-of-Line Component testing - sub-committee chair Richard Stroud has formed a first draft. Dr. Farina has developed a survey to attain perspectives of importance for eol testing. Take the survey at: [https://docs.google.com/a/aidasrl.it/forms/d/11qWcvzI0ik-lonw9LB4XVemzCS-X-\\_uUjRiCn155FgY/edit?ts=590c403d](https://docs.google.com/a/aidasrl.it/forms/d/11qWcvzI0ik-lonw9LB4XVemzCS-X-_uUjRiCn155FgY/edit?ts=590c403d)
  - Please be sure to join SC04-03 to participate in standards discussions.

#### New Topics:

- None.

#### Next Meeting:

- AES 143<sup>rd</sup> New York, Oct, 2017