

Minutes of 141st AES TC on Coding of Audio Signals Meeting

Introduction

The meeting was called to order at the 141st AES Convention, Los Angeles, at 2:00PM, Thursday September 29th, 2016 by Schuyler Quackenbush, co-chair.

The agenda was approved, shown in the Annex-1. The chair welcomed attendees, shown in Annex-2, and thanked them for participating in the TC meeting.

The Chair noted the activities at the 141st convention that were specifically sponsored by this TC and also noted other coding-related events. The Chair also noted activities planned for the 142nd convention (shown under Action Items, below).

The TC brainstormed on possible future activities. The following is a summary of those ideas:

- Next Generation Audio. If this is aimed at the systems level (e.g. functionality and metadata), then Jeff Rietmuller, Dolby and Stephan Meltzer, FhG might participate. If it is aimed at coding tools, the Heiko Purnhagen or Kristopher Khorling, Dolby and someone at FhG might participate.
- Repeat “classic” perceptual coding tutorials. This could include
 - human auditory system, single-channel perceptual coding
 - source coding models, i.e. speech production models
 - perception of audio in 3 dimensions and associated tools for 3D audio coding, including spatial localization and spatial masking
 - parametric audio coding
- Metadata for audio. This might include a review of the EBU ADM
- Low delay audio coding.
- Audio rendering, including coding for efficient rendering
- Audio coding for content that is audio and video (i.e. Cinema and TV)
 - Frame-aligned editing, splicing and insertion
 - Dialog enhancement
 - Metadata interoperability across content domains (e.g. Cinema to TV or streaming delivery)

The Chair urged attendees to continue to consider how this list might evolve into workshops or tutorials.

Finally, the Chair noted that the Technical Council as asked that individual TC’s consider revising their contribution to the Technology Trends paper posted on the AES website.

There was no other business. The TC meeting was adjourned at 3:00 PM.

Summary of Action Items:

- Jurgen Herre will give a workshop on “State of the art in modern parametric (hybrid) audio coding” at the 142nd AES Convention, Berlin. This will

encompass techniques like bandwidth extension and parametric multi-channel/multi-object coding.

- The TC will propose a tutorial on “The Human Auditory System and Perceptual Audio Coding” for the 142nd AES Convention, New York. This will cover the physics of human hearing as it applies to single-channel perceptual audio coding.
- The TC will propose a workshop or tutorial on “Next Generation Audio Codecs” for a future AES Convention, perhaps New York. This will cover at least ATSC 3.0 audio codecs and perhaps others that are expected to have an impact in the marketplace.

Annex-1

Agenda

- 1) Approval of Agenda
- 2) Opening Remarks of Chairman
- 3) Interesting sessions in 141st Convention
 - Friday 3:15-4:45 B7 Audio OTT
- 4) Richard C. Heyser Memorial Lecture Series
 - Dave Smith
- 5) Review of / proposals for activities at upcoming conventions, conferences, workshops etc.
 - 142nd Convention, Berlin
 - A workshop on “State of the art in modern parametric (hybrid) audio coding” was proposed encompassing techniques like bandwidth extension and parametric multi-channel/multi-object coding. Jürgen Herre will drive this effort.
 - 143rd Convention, New York
- 6) Update of Technology Trends
- 7) Any Other Business
- 8) Next Meeting
- 9) Closing of the Meeting

ANNEX 2 – Participants

First	Last	Affiliation	Email
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