

Minutes of 143rd AES TC on Coding of Audio Signals

Minutes

The meeting was called to order at the 143rd AES Convention, New York, October 19, 2017 at 5:00pm by Schuyler Quackenbush, co-chair.

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

The Chair noted the activities at the 143rd convention that were specifically sponsored by this TC and also noted other coding-related events.

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

Workshops for upcoming conventions

- Speech and Audio coding for Telecommunications – This was a workshop proposed for the 143rd convention, but for whatever reason was not held. It could be joint with the TC on Audio for Telecommunications. Guillaume Fuchs and Frederik Nagel were organizing this for the 143rd convention.
- Audio Coding for AR/VR – This is topical, but needs more discussion to determine the scope of the workshop.
- Multi-modal Cues for AR/VR – This could be joint with TC on Perception. This also is topical, and might best be a workshop where panelists present alternate views on the topic. Again, this needs more discussion.

New Edition of CD on “Perceptual Audio Coders - What To Listen For”

The proposal for an update of this CD generated quite a bit of enthusiasm among attendees. It was noted that the original CD was mostly mono signal impairments, with some intensity stereo artifacts. An update could cover

- Spectral Band Replication (SBR)
- Parametric Stereo (PS)
- Perceptual Noise Substitution (PNS)
- SAOC
- MPEG Surround
- Coding of multichannel signals (M/S coding and generalized joint channel coding)

It was noted that most impairments were generated by “toy” encoders/decoder systems, e.g. Matlab programs just to create a specific distortion. While the original CD provided direct payout of stereo WAV files as CD tracks, it was noted that a CD ROM or

USB stick might be a better vehicle for an update. However, it was not clear whether to try to simulate multi-channel artifacts (e.g. 5.1 or 11.1): it should be investigated how users would play such example signals.

The Chair will start discussion on the topic of a revision to the coding artifacts CD.

There was no other business. The TC meeting was adjourned at 6:00 PM.

Annex-1

Agenda

- 1) Approval of Agenda
- 2) Opening Remarks of Chairman
- 3) Interesting sessions in 143rd Convention
 - Game Audio
 - Wed GA01 10:30-11:30 Will VR be a game changer? (6 DoF)
 - Spatial Audio
 - Wed SA05 4:00-5:00 Binaural (Edgar Choueiri)
 - Thu SA06 3:00-4:00 VR Audio Latency
 - Thu SA07 3:15-4:45 Practical Immersive Audio at Home
 - Fri SA08 1:45-3:45 Immersive Music (“why do it”)
 - Coding
 - Fri PD06 9:00-10:30 Workshop on hybrid audio coding
 - Listening Tests
 - Thu TW05 10:45-12:15 New Listening Test Designs
- 4) Review of and proposals for activities at upcoming conventions, conferences, workshops etc.
 - Expansion of CD-ROM “Audio Codecs – What to Listen For.” Shall we expand and extend this demonstration material? See minutes from the 142nd meeting. Perhaps add multi-channel sound?
 - Workshop on Issues in Coding for VR?
 - Other proposals?
- 5) Any Other Business
- 6) Next Meeting
- 7) Closing of the Meeting

ANNEX 2 – Participants

First	Last	Affiliation
Schuyler	Quackenbush	ARL
Juergen	Herre	IAL
Phill	Williams	Netflix
Royuske	Sugihama	NTT
Andreas	Niedermeiar	FhG-IIS
Sascha	Dick	FhG-IIS
Sascha	Dich	FhG-IIS
Christof	Faller	Illusonic
Marina	Bosi	Stanford Univ.