

International Symposium on Auditory and Audiological Research

ISAAR 2009
40 years jubilee symposium
26-28 August 2009

Title: “Binaural processing and spatial hearing”

Wednesday 26 August

08:00-10:00 Registration and hanging of posters
10:00-10:15 Welcome

Session I: Physiological measures and models of binaural processing

10:15-10:50 David McAlpine: “Transformation in ITD coding in the auditory midbrain”
10:50-11:25 Philip Joris: “Monaural and binaural temporal processing towards spatial hearing”
11:25-12:00 Ken Hancock: “Neural coding of ITD with bilateral cochlear implants: Effects of auditory experience”

12:00-13:00 Lunch

13:00-13:35 Terry Picton: “Objective measurements of human binaural processing”
13:35-13:55 Jakob Christensen-Dalsgaard: “Biophysics, neural processing and robotics of the lizard ear, a highly directional sensor”
13:55-14:15 Ville Pulkki: “Cross-frequency integration in inputs of functional model of MSO”
14:15-14:35 Tamás Haczos: “Evaluation of cues for horizontal-plane localization with bilateral cochlear implants”

14:35-15:00 Coffee break

Session II: Perceptual measures and models of spatial hearing

15:00-15:35 Laurel Carney: “Binaural cues for detection of signals in noise: Experiments and models”
15:35-16:10 John Culling: “From EC-theory to speech intelligibility in rooms”
16:10-16:30 Tobias May: “The effect of temporal integration in a probabilistic model for robust acoustic localization”
16:30-16:50 Mathias Dietz: “The role of envelope waveform in the processing of high-frequency interaural timing disparities”

17:00-19:00 Poster session I

19:00-20:00 Dinner

20:00-22:00 *Jubilee drinks in the poster area*

Thursday 27 August

Session II: Perceptual measures and models of spatial hearing (continued)

08:30-09:05 Tino Trahiotis: “Assessing the processing of interaural temporal disparities within high frequency stimuli via manipulations of the temporal signatures of their envelopes”
09:05-09:40 Dorte Hammershøi: “Human localization and performance measures”
09:40-10:15 Jens Blauert: “Aural assessment by means of binaural algorithms – the AABBA project”

10:15-10:45 Coffee break

- 10:45-11:05 Jörg Buchholz: "A loudspeaker-based room auralisation (LoRA) system for auditory perception research"
- 11:05-11:25 Gurjit Singh: "The effect of hearing loss on auditory spatial attention"
- 11:25-11:45 Janina Fels: "Spatial hearing as a function of growth: How adults differ from children"
- 12:00-13:00 Lunch

Session III: Speech processing and perception under adverse conditions

- 13:00-13:35 Michael Akeroyd: "The precedence effect for speech and hearing impairment"
- 13:35-14:10 Birger Kollmeier: "Human speech recognition, machine speech recognition and hearing aids: What can humans learn from computers and vice versa?"
- 14:10-14:45 Adelbert Bronkhorst: "Central auditory processing in the cocktail-party effect"
- 14:45-15:15 Coffee break
- 15:15-15:50 Stefan Launer: "Binaural Signal Processing in Hearing Instruments: applications for speech intelligibility in adverse listening conditions"
- 15:50-16:10 Douglas Brungard: "Spatial release from masking in azimuth and elevation with individualized and non-individualized Head-Related Transfer Functions"
- 16:10-16:30 Martin Vestergaard: "The advantage of spatial and vocal characteristics in the recognition of competing speech"
- 16:30-18:30 Poster Session II
- 19:00-20:30 Dinner
- 20:30-23:30 *Jubilee bar and jazz band "Ole Bram Quintet"*

Friday 28 August

Session IV: Recent concepts in binaural cochlear-implant and hearing-aid processing

- 08:30-09:05 Uwe Baumann: "Speech perception with combined electric acoustic stimulation (EAS) and bilateral/bimodal/unilateral cochlear implant in a multi-source noise field"
- 09:05-09:40 Bernhard Laback: "Perception of interaural time differences in electric and acoustic hearing"
- 09:40-10:15 Andrew Dittberner: "A binaural signal processing strategy for converging hearing instrument adaptation with listener intent"
- 10:15-10:45 Coffee break
- 10:45-11:20 Brent Edwards: "Binaural Psychoacoustic Considerations for Hearing Aid Processing"
- 11:20-11:40 Jorge Mejia: "Speech intelligibility enhancement through binaural signal processing"
- 11:40-12:00 Thomas Behrens: "A method for quantifying the effects of non-linear hearing-aid signal-processing on interaural level difference cues in conditions with multiple sound sources"
- 12:00-12:10 Closing remarks
- 12:15-13:15 Lunch