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Research outputs:

Effect of Noise Reduction Gain Errors on Simulated Cochlear Implant Speech Intelligibility
Research output: Research - peer-review › Journal article – Annual report year: 2019

The impact of noise power estimation on speech intelligibility in cochlear-implant speech coding strategies
Research output: Research - peer-review › Journal article – Annual report year: 2019

Effects of Fast-Acting Hearing-Aid Compression on Audibility, Forward Masking and Speech Perception
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Effects of Slow- and Fast-Acting Compression on Hearing-Impaired Listeners’ Consonant–Vowel Identification in Interrupted Noise
Research output: Research - peer-review › Journal article – Annual report year: 2018

Robust speech dereverberation with a neural network-based post-filter that exploits multi-conditional training of binaural cues
Research output: Research - peer-review › Journal article – Annual report year: 2018

Signal-to-Noise-Ratio-Aware Dynamic Range Compression in Hearing Aids
Research output: Research - peer-review › Journal article – Annual report year: 2018

The benefit of combining a deep neural network architecture with ideal ratio mask estimation in computational speech segregation to improve speech intelligibility
Research output: Research - peer-review › Journal article – Annual report year: 2018

The impact of exploiting spectro-temporal context in computational speech segregation
Research output: Research - peer-review › Journal article – Annual report year: 2018

Assessment of broadband SNR estimation for hearing aid applications
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Effects of slow- and fast-acting compression on hearing impaired listeners’ consonant-vowel identification in interrupted noise
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Exploiting Deep Neural Networks and Head Movements for Robust Binaural Localization of Multiple Sources in Reverberant Environments
Influence of binary mask estimation errors on robust speaker identification
Research output: Research - peer-review › Journal article – Annual report year: 2017

Investigating the effects of noise-estimation errors in simulated cochlear implant speech intelligibility
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Prediction of speech intelligibility based on a correlation metric in the envelope power spectrum domain
Research output: Research › Poster – Annual report year: 2017

Preserving spatial perception in rooms using direct-sound driven dynamic range compression
Research output: Research - peer-review › Journal article – Annual report year: 2017

A correlation metric in the envelope power spectrum domain for speech intelligibility prediction
Research output: Research - peer-review › Poster – Annual report year: 2017

Assessing and modeling apparent source width perception
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Assessing the contribution of binaural cues for apparent source width perception via a functional model
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Comparing the influence of spectro-temporal integration in computational speech segregation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Outcome measures based on classification performance fail to predict the intelligibility of binary-masked speech
Research output: Research - peer-review › Journal article – Annual report year: 2016

Predicting speech intelligibility based on a correlation metric in the envelope power spectrum domain
Research output: Research - peer-review › Journal article – Annual report year: 2016

A machine-hearing system exploiting head movements for binaural sound localisation in reverberant conditions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Apparent source width perception in normal-hearing, hearing-impaired and aided listeners
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Exploiting deep neural networks and head movements for binaural localisation of multiple speakers in reverberant conditions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

ROBUST LOCALISATION OF MULTIPLE SPEAKERS EXPLOITING HEAD MOVEMENTS AND MULTI-CONDITIONAL TRAINING OF BINAURAL CUES
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

The role of temporal resolution in modulation-based speech segregation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Computational speech segregation based on an auditory-inspired modulation analysis
Research output: Research - peer-review › Journal article – Annual report year: 2014
Generalization of Supervised Learning for Binary Mask Estimation
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Requirements for the evaluation of computational speech segregation systems
Research output: Research - peer-review › Journal article – Annual report year: 2014

The effect of interaural-time-difference fluctuations on apparent source width
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

The importance of binaural cues for the perception of apparent source width at different sound pressure levels
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Binaural Localization and Detection of Speakers in Complex Acoustic Scenes
Research output: Research - peer-review › Book chapter – Annual report year: 2013

Environment-aware ideal binary mask estimation using monaural cues
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Extracting Sound-Source-Distance Information from Binaural Signals
Research output: Research - peer-review › Book chapter – Annual report year: 2013

Sound Source Distance Estimation in Rooms based on Statistical Properties of Binaural Signals
Research output: Research - peer-review › Journal article – Annual report year: 2013

A Binaural Scene Analyzer for Joint Localization and Recognition of Speakers in the Presence of Interfering Noise Sources and Reverberation
Research output: Research - peer-review › Journal article – Annual report year: 2012

Binaural Scene Analysis: Localization, Detection and Recognition of Speakers in Complex Acoustic Scenes
Research output: Research › Ph.D. thesis – Annual report year: 2012

Blind estimation of the number of speech source in reverberant multisource scenarios based on binaural signals
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

Noise-Robust Speaker Recognition Combining Missing Data Techniques and Universal Background Modeling
Research output: Research - peer-review › Journal article – Annual report year: 2012

On the statistics of Binaural Room Transfer Functions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2012

A Probabilistic Model for Robust Localization Based on a Binaural Auditory Front-End
Research output: Research - peer-review › Journal article – Annual report year: 2011

Binaural detection of speech sources in complex acoustic scenes
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Simultaneous localization and identification of speakers in noisy and reverberant environments
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011
Speaker Distance Detection Using a Single Microphone
Research output: Research - peer-review › Journal article – Annual report year: 2011

Single-channel sound source distance estimation based on statistical and source-specific features
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

The effect of spectro-temporal integration in a probabilistic model for robust acoustic localization
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Constant complexity reverberation for any reverberation time
Research output: Research - peer-review › Article in proceedings – Annual report year: 2007

Distant teaching of chamber music via local area networks
Research output: Research - peer-review › Article in proceedings – Annual report year: 2006

Projects:

Characterizing neutral mechanisms of attention-driven speech processing
Project: PhD

Characterizing neural mechanisms of attention-driven speech processing
Project: PhD

Assessing hearing-aid signal processing based on variations of the Turing test
Project: PhD

Computational speech segregation inspired by principles of auditory processing
Project: PhD

Correlations between physical and perceptual parameters of acoustic scenarios. Implications for auditory modelling and sound field design
Project: PhD

Modeling perceptual externalization in the normal, impaired and aided-impaired auditory system
Project: PhD