Finn T. Agerkvist - DTU Orbit (07/02/2019)

Agerkvist, Finn T.
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Department of Electrical Engineering - Head of Group, Associate professor

Acoustic Technology

Research outputs:

Active room compensation for sound reinforcement using sound field separation techniques
Research output: Research - peer-review › Journal article – Annual report year: 2018

A Quiet Zone System, Optimized For Large Outdoor Events, Based on Multichannel FxLMS ANC
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

A Stepped Acoustic Transmission Line Model of Interference Tubes for Microphones
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Fractional Derivative Loudspeaker Models for Nonlinear Suspensions and Voice Coils
King, A. W. & Agerkvist, F. T. 2018 In : Journal of Audio Engineering Society. 66, 7/8, p. 525-536
Research output: Research - peer-review › Journal article – Annual report year: 2018

On the Interdependence of Loudspeaker Motor Nonlinearities
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

Sound field control for reduction of noise from outdoor concerts
Research output: Research - peer-review › Article in proceedings – Annual report year: 2018

An adaptive, data driven sound field control strategy for outdoor concerts
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Position Dependence of Fractional Derivative Models for Loudspeaker Voice Coils with Lossy Inductance
Research output: Research - peer-review › Article in proceedings – Annual report year: 2017

Accelerometer Based Motional Feedback Integrated in a 2 3/4" Loudspeaker
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

Do wavelet filters provide more accurate estimates of reverberation times at low frequencies
Exposition on Noise Control Engineering: Towards a Quieter Future.
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

**Force Factor Modulation in Electro Dynamic Loudspeakers**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

**Modelling the Perceptual Components of Loudspeaker Distortion**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2016

**Design and Evaluation of Accelerometer based Motional Feedback**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

**Flux Modulation in the Electrodynamic Loudspeaker**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

**Improvements in Elimination of Loudspeaker Distortion in Acoustic Measurements**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

**Improving the efficiency of deconvolution algorithms for sound source localization**
Research output: Research - peer-review › Journal article – Annual report year: 2015

**Investigation of Current Driven Loudspeakers**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

**Modeling of Lossy Inductance in Moving-Coil Loudspeakers**
Research output: Research - peer-review › Journal article – Annual report year: 2015

**Reproduction of nearby sources by imposing true interaural differences on a sound field control approach**
Research output: Research - peer-review › Journal article – Annual report year: 2015

**Shift of the Acoustic Center of a Closed-Box Loudspeaker in a Linear Array: Investigation Using the Beamforming Technique**
Research output: Research - peer-review › Journal article – Annual report year: 2015

**State-Space Modelling of Loudspeakers using Fractional Derivatives**
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015
Compensation of the flux modulation distortion using an additional coil in a loudspeaker unit
(137th Audio Engineering Society Convention 2014).
Research output: Research - peer-review › Article in proceedings – Annual report year: 2015

Compensation of the flux modulation distortion using an additional coil in a loudspeaker unit.  
Convention Paper 9160  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Eigenbeamforming array systems for sound source localization  
Research output: Research › Ph.D. thesis – Annual report year: 2014

Eliminating transducer distortion in acoustic measurements  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Enhancing the beamforming map of spherical arrays at low frequencies using acoustic holography  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2014

Model Based Beamforming and Bayesian Inversion Signal Processing Methods for Seismic Localization of Underground Source  
Research output: Research › Ph.D. thesis – Annual report year: 2014

New measurements techniques: Optical methods for characterizing sound fields  
Research output: Research › Ph.D. thesis – Annual report year: 2014

Nonlinear Distortion Mechanisms and Efficiency of Balanced-Armature Loudspeakers  
Research output: Research › Ph.D. thesis – Annual report year: 2014

Arrangements of a pair of loudspeakers for sound field control with double-layer arrays  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

Towards an enhanced performance of uniform circular arrays at low frequencies  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2013

A comparison of two strategies for generating sound zones in a room.  
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011
Adaptive Feedback Cancellation With Band-Limited LPC Vocoder in Digital Hearing Aids
Research output: Research - peer-review › Journal article – Annual report year: 2011

Extracting the invariant model from the feedback paths of digital hearing aids
Research output: Research - peer-review › Journal article – Annual report year: 2011

Generation of sound zones in 2.5 dimensions
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

Nonlinear time-domain modeling of balanced-armature receivers
Research output: Research - peer-review › Journal article – Annual report year: 2011

Non linear viscoelastic models
Research output: Research - peer-review › Article in proceedings – Annual report year: 2011

The effect of vocal tract impedance on the vocal folds
Research output: Research - peer-review › Conference abstract in proceedings – Annual report year: 2011

Circular Loudspeaker Array with Controllable Directivity
Research output: Research › Article in proceedings – Annual report year: 2010

Frequency Dependence of Damping and Compliance in Loudspeaker Suspensions
Research output: Research - peer-review › Journal article – Annual report year: 2010

Modelling Viscoelasticity of Loudspeaker Suspensions using Retardation Spectra
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Noise injection for feedback cancellation with linear prediction
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

Using a reflection model for modeling the dynamic feedback path of digital hearing aids
Research output: Research - peer-review › Journal article – Annual report year: 2010

Volterra Series Based Distortion Effect
Research output: Research - peer-review › Article in proceedings – Annual report year: 2010

A new approach for modelling the dynamic feedback path of digital hearing aids
Concha headphones and their coupling to the ear
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

Time varying behavior of the loudspeaker suspension: Displacement level dependency
Research output: Research - peer-review › Article in proceedings – Annual report year: 2009

A Study of the Creep Effect in Loudspeaker Suspension
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Non-linear Loudspeaker Unit Modelling
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Time Variance of the Suspension Nonlinearity
Research output: Research - peer-review › Article in proceedings – Annual report year: 2008

Modelling Loudspeaker Non-Linearities
Research output: Research › Article in proceedings – Annual report year: 2007

Monaural separation of dependent audio sources based on a generalized Wiener filter
Research output: Research › Article in proceedings – Annual report year: 2007

Time Varying Behavior of the Loudspeaker Suspension
Research output: Research › Article in proceedings – Annual report year: 2007

Efficient Non Linear Loudspeakers
Research output: Research › Article in proceedings – Annual report year: 2006

Development of a Sound Quality Evaluation System
Research output: Research › Article in proceedings – Annual report year: 2004

Subjective test of class D amplifiers without output filter
Research output: Research › Article in proceedings – Annual report year: 2004

Measuring the complexity of the ocean floor
Research output: Research › Article in proceedings – Annual report year: 2000

A Study of Simple Diffraction Models
Research output: Research › Report – Annual report year: 1997
A Study of Simple Diffraction Models
Agerkvist, F. 1997
Research output: Research - peer-review › Paper – Annual report year: 1997

A Time-Frequency Auditory Model Using Wavelet Packets
Research output: Research - peer-review › Journal article – Annual report year: 1996

Time-frequency analysis with temporal and spectral resolution as the human auditory system
IEEE, p. 425-428
Research output: Research - peer-review › Article in proceedings – Annual report year: 1992

Projects:

Sound Field Analysis and Microphone Array in Rooms
Hahmann, M., Fernandez Grande, E. & Agerkvist, F. T.
01/02/2019 → 31/01/2022
Project: PhD

Acoustic Array Processing and Sound Field Analysis in Rooms
Eksternt finansieret virksomhed
01/07/2018 → 30/06/2021
Project: PhD

Optimization of loudspeakers using material and shape optimization
Nielsen, D. G., Agerkvist, F. T. & Jensen, J. S.
Institut stipendie (DTU)
01/03/2018 → 28/02/2021
Project: PhD

Real time sound field control for outdoor concerts - silent zones, adaptation and objective-subjective performance
Plewe, D., Agerkvist, F. T., Brunskog, J. & Fernandez Grande, E.
Samfinansieret - Andet
01/05/2017 → 14/05/2020
Project: PhD

Outdoor Sound Propagation and Monitoring for Sound Field Control Applications
Caviedes Nozal, D., Brunskog, J., Agerkvist, F. T. & Fernandez Grande, E.
Samfinansieret - Andet
15/12/2016 → 14/12/2019
Project: PhD

Sound field control for outdoor concerts
Heuchel, F. M., Agerkvist, F. T., Brunskog, J. & Fernandez Grande, E.
Samfinansieret - Andet
15/12/2016 → 14/12/2019
Project: PhD

Minimering af vibro-akustik i tilbagekobling (feedback) i høreapparater
Friis, L., Ohrich, M., Jacobsen, F., Jensen, L. B., Agerkvist, F. T. & Carcaterra, A.
ErhvervsPhD-ordningen VTU
01/07/2005 → 20/05/2009
Project: PhD
Akustisk Identifikation af Søminer
Wendelboe, G., Sørensen, H. B. D., Damsgaard, B., Jacobsen, F., Agerkvist, F. T., Juhl, P. M. & Lyons, A. P.
Anden sektorministeriel finans
01/03/2002 → 30/03/2007
Project: PhD

Nonlinear fractional order derivative models of components and materials in hearing aids and transducers
King, A. W., Agerkvist, F. T., Brunskog, J. & Jensen, J. S.
Forskningsrådsfinansiering
01/05/2016 → 30/04/2019
Project: PhD

Quantification of diffuseness chambers for sound absorption measurements
Samfinansieret - Andet
01/08/2015 → 23/01/2019
Project: PhD

Nonlinear balanced armature receivers
Jensen, J., Agerkvist, F. T., Harte, J., Brunskog, J., Bard, D., Klippel, W., Bard, D. & Klippel, W.
ErhvervsPhD-ordningen VTU
01/07/2010 → 15/11/2014
Project: PhD

New measurement techniques: Optical methods for characterizing sound fields
Torras Rosell, A., Agerkvist, F. T., Barrera Figueroa, S., Jeong, C., Gazengel, B. & Humphrey, V. F.
ErhvervsPhD-ordningen VTU
01/04/2010 → 19/03/2014
Project: PhD

Speech intelligibility enhancement using modern envelope and phase manipulations
Decorsière, R. J. B., Dau, T., MacDonald, E., Søndergaard, P. L., Agerkvist, F. T., Ghitza, O. & Stone, M. A.
Eksternt finansieret virksomhed
15/02/2010 → 19/11/2013
Project: PhD

Samtidig tids- og frekvensanalyse
Agerkvist, F. T., Jacobsen, F. & Elberling, C.
DTU-stipendium
01/02/1992 → 02/08/1995
Project: PhD

New Strategies for Feedback Suppression in Hearing Instruments
ErhvervsPhD-ordningen VTU
01/05/2007 → 01/09/2010
Project: PhD

Topology optimization for medium- to high-frequency applications
Christiansen, R. E., Sigmund, O., Jensen, J. S., Lazarov, B. S., Agerkvist, F. T., Berggren, M., Schevenels, M. & Berggren, M.
Institut, samfinansiering
15/06/2013 → 30/09/2016
Project: PhD
Deconvolution of seismic transient: A model-based signal processing approach
Oh, G. L., Brunskog, J., Agerkvist, F. T., Jensen, J. S., Mosegaard, K., Rydén, N. & Rydén, N.
Ansat eksternt
15/03/2011 → 30/09/2014
Project: PhD

Computational methods for detection and imaging of oil in sea water
1/3 FUU, 1/3 inst 1/3 Andet
01/07/2011 → 13/08/2015
Project: PhD

Acoustic array methods for identification of noise sources in vehicles
Tiana Roig, E., Jeong, C., Agerkvist, F. T., Jacobsen, F., Juhl, P. M., Rafaely, B. & Song, W.
Institut stipendie (DTU)
01/10/2010 → 26/01/2015
Project: PhD

Loudspeaker cabinet edge diffraction
Agerkvist, F. T.
01/10/1994 → 31/01/1997
Project: Research