



PROGRAM GUIDE:

SIXTH INTERNATIONAL CONFERENCE ON DIGITAL AUDIO EFFECTS (DAFX-03).

8-11 SEPTEMBER 2003.

QUEEN MARY, UNIVERSITY OF LONDON

MONDAY 08 SEPTEMBER

10.00 TUTORIAL: “Cultural and Acoustic Representations for Music Retrieval and Understanding”. *Brian Whitman (MIT)*

14.30 TUTORIAL: “Sound replacement, beat unmixing and audio mosaics: Content-based audio processing with MPEG-7”. Michael Casey (City University London), Adam Lindsay (Lancaster University) [MPEG-7 Co-editors]

18.00 WELCOME RECEPTION: FOYER OF PEOPLES PALACE

TUESDAY 09 SEPTEMBER

09.00 WELCOME BY PROF SANDLER & PROF SMITH

09.15 KEYNOTE SPEECH: “MPEG-7 Audio: Tools for Semantic Audio Description and Processing”. Juergen Herre (Fraunhofer Institute)

10.00 SESSION: PERCEPTION

- “Investigations with the Sonic browser on two of the perceptual auditory dimensions of sound objects: Elasticity and force”. Laura Ottaviani and Mikael Fernström
- “On the evaluation of perceptual similarity measures for music”. Elias Pampalk, Simon Dixon, Gerhard Widmer

10.40 COFFEE & TEA: FOYER OF PEOPLES PALACE

11.00 SESSION: ANALYSIS & SYNTHESIS I

- “Independent subspace analysis using locally linear embedding”. Derry FitzGerald, Eugene Coyle Bob Lawlor
- “Interpolation of long gaps in audio signals using the warped Burg’s method”. Paulo A. Esquef, Vesa Välimäki, Kari Roth and Ismo Kauppinen
- “Nonlinear time series analysis of musical signals”. J. D. Reiss and M. B. Sandler
- “Real-time implementation of a source separation algorithm”. Matthias Baeck and Udo Zölzer
- “Algorithm for the separation of harmonic sounds with time-frequency smoothness constraint”. Tuomas Virtanen

12.40 LUNCH & POSTER SESSION I: OCTAGON

- “Simulation of sound source motion by time-frequency filtering”. John C. Sarris, Sotirios A. Dalianis and George E. Cambourakis
- “Chaotic signal synthesis with real-time control: solving differential equations in PD, MAX/MSP, and JMAX”. Shahrokh Yadegari
- “Using nonlinear amplifier simulation in dynamic range controllers”. Jiri Schimmel
- “A hybrid approach to a timbrally consistent virtual instrument”. Sean O’Leary and Niall Griffith
- “Multichannel audio decorrelation for coding”. Soledad Torres-Guijarro, Jon Ander Beracochea Alava, Luis I. Ortiz-Berenguer, F. Javier Casajús-Quirós
- “Real time spectral expansion for creative and remedial sound transformation”. Jeremy J. Wells and Damian T. Murphy
- “FFT analysis as a creative tool in live performance”. Michael Young and Sebastian Lexter
- “Recent developments in PWSYNTH”. Mikael Laurson and Vesa Norilo

14.30 SESSION: RHYTHMIC & TONAL ANALYSIS

- “Model-based event labelling in the transcription of percussive audio signals”. Jouni Paulus and Anssi Klauri
- “Non-linear effects modelling for polyphonic piano transcription”. Luis I. Ortiz-Berenguer, F. Javier Casajús-Quirós and Marisol Torres-Guijarro
- “Estimation of tempo, microtime and time signature from percussive music”. Christian Uhle and Juergen Herre
- “Complex domain onset detection for musical signals”. Chris Duxbury, Juan Pablo Bello, Mike Davies and Mark Sandler
- “Rhythmic expressiveness transformations of audio recordings: swing modifications”. Fabien Gouyon, Lars Fabig and Jordi Bonada

16.10 COFFEE & TEA: FOYER OF PEOPLES PALACE

16.30 SESSION: GESTURE & USER INTERACTION

- “MUSECAPE: An interactive content-aware music browser”. George Tzanetakis
- “Driving pitch shifting and time-scaling algorithm with adaptive and gestural techniques”. Daniel Arfib and V. Verfaille
- “CYMATIC: A tactile controlled physical modelling instrument”. David M Howard and Stuart M Rimell
- “Introducing audio D-TOUCH: A tangible user interface for music composition and performance”. E.Costanza, S.B.Shelley and J.A.Robinson

20.00 ELECTROACOUSTIC MUSIC CONCERT: BOLIVAR HALL

WEDNESDAY 10 SEPTEMBER

09.00 KEYNOTE SPEECH: “Spectral Modelling Synthesis”. Xavier Serra (University Pompeu Fabra)

09.45 SESSION: ANALYSIS & SYNTHESIS II

- “Additive synthesis based on the continuous wavelet transform: A sinusoidal plus transient model”. José R. Beltrán and Fernando Beltrán
- “Analysis and resynthesis of quasi-harmonic sounds: an iterative filterbank approach”. Harvey D. Thornburg, Randal J. Leistikow
- “The caterpillar system for data-driven concatenative sound synthesis”. Diemo Schwarz

10.45 COFFEE & TEA: FOYER OF PEOPLES PALACE

11.10 SESSION: PARTIAL TRACKING & FREQUENCY ESTIMATION

- “Enhanced partial tracking using linear prediction”. Mathieu Lagrange, Sylvain Marchand, Martin Raspaud and Jean-Bernard Rault
- “Direct estimation of frequency from MDCT-encoded files”. S. Merdjani and L. Daudet
- “On sinusoidal parameter estimation”. Stephen Hainsworth and Malcolm Macleod

12.30 LUNCH & POSTER SESSION II: OCTAGON

- “Wave field synthesis interaction with the listening environment, improvements in the reproduction of virtual sources situated inside the listening room.” T. Caulkins, E. Corteel and O. Warusfel
- “Monitoring distance effects with wave field synthesis”. M. Nogues, E. Corteel and O. Warusfel
- “An expressive real-time sound model of rolling.” Matthias Rath
- “EGOSOUND, an egocentric, interactive and real time approach of sound space.” Anne Sedes, Benoît Courribet and Jean-Baptiste Thiébaud

- “Musically expressive sound textures from generalized audio”. Ben Recht and Brian Whitman
- “GUI front-end for spectral warping” T. Healy, T. Lysaght and J. Timoney
- “Extracting automatically the perceived intensity of music titles”. Aymeric Zils and François Pachet
- “Perceptual evaluation of weighted multichannel binaural format”. Emmanuel Rio, Guillaume Vandernoot and Olivier Warusfel
- “Extraction of the excitation point location on a string using weighted least-square estimation of comb filter delay”. Caroline Traube and Philippe Depalle

14.30 SESSION: SPATIALIZATION & 3D AUDIO

- “A non-linear technique for room impulse response estimation”. Tim Collins
- “Sound spatialization based on fast beam tracing in the dual space”. Marco Foco, Pietro Polotti, Augusto Sarti, Stefano Tubaro
- “Software for the simulation, performance, analysis and real-time implementation of wave field synthesis systems for 3D-audio”. Sergio Bleda, Jose J. Lopez and Basilio Pueo
- “On the use of spatial cues to improve binaural source separation”. Harald Viste and Gianpaolo Evangelista
- “Room simulation for binaural sound reproduction using measured spatio temporal impulse responses”. Cornelia Falch, Markus Noisternig, Stefan Warum, Robert Höldrich

16.10 COFFEE & TEA: FOYER OF PEOPLES PALACE

16.30 SESSION: PHYSICAL MODELLING I

- “Automatic synthesis strategies for object-based dynamical physical models in musical acoustics”. Giovanni De Sanctis, Augusto Sarti, Stefano Tubaro
- “The wave digital reed: A passive formulation”. Stefan Bilbao, Julien Bensa and Richard Kronland-Martinet
- “Sound synthesis by physical modelling using the functional transformation method: Efficient implementations with polyphase-filterbanks”. Stefan Petrusch and Rudolf Rabenstein
- “A new estimation technique for determining the control parameters of a physical model of a trumpet”. Wim D’haes and Xavier Rodet

19.30 BANQUET: CAFÉ SPICE NAMASTE

THURSDAY 11 SEPTEMBER:

09.00 KEYNOTE SPEECH: “Music Information Retrieval”.
Tim Crawford (City University London)

09.45 DEMO: KTWEB

09.55 DAFX-04 ADVANCED NOTIFICATION

10.00 SESSION: AUDIO CODING

- “High frequency reconstruction for band-limited audio signals”. Chi-Min Liu, Wen-Chieh Lee, and Han-Wen Hsu
- “Perceptually motivated parametric representation for harmonic sounds for data compression purposes”. Marko Helen and Tuomas Virtanen

10.40 COFFEE & TEA: FOYER OF PEOPLES PALACE

11.10 SESSION: PHYSICAL MODELLING II

- “A simple, accurate wall loss filter for acoustic tubes”. Jonathan Abel, Tamara Smyth and Julius O. Smith III
- “The voice of the dragon: A physical model of a rotating corrugated tube”. Juraj Kojcs and Stefania Serafin
- “BLOCKCOMPILER – A research tool for physical modelling and DSP”. Matti Karjalainen
- “10 criteria for evaluating physical modelling schemes for music creation”. Nicolas Castagne and Claude Cadoz

12.30 LUNCH & POSTER SESSION III: OCTAGON

- “M/S coding based on allocation entropy”. Chi-Min Liu, Wen-Chieh Lee, and Yu-Hua Hsiao
- “Fast perceptual convolution for the room reverberation”. Wen-Chieh Lee, Chi-Min Liu, Chung-Han Yang and Jiun-In Guo
- “A comparison of music similarity measures for a P2P application”. Stephan Baumann and Tim Pohle
- “Metabolic emergent auditory effects by means of physical particle modeling: the example of musical sand”. Luciani Annie, Castagne Nicolas and Tixier Nicolas
- “Bit allocation for advanced audio coding bandwidth-propositional noise-shaping criterion”. Chi-Min Liu, Wen-Chieh Lee and Chu-Ting Chien
- “A real-time audio rendering system for the Internet (IARS), embedded in an electronic music library (IAEM)”. Christopher Frauenberger and Winfried Ritsch
- “Analysis of transient musical sounds by auto-regressive modelling”. Florian Keiler, Can Karadogan, Udo Zölzer, and Albrecht Schneider
- “Matching live sources with physical models”. Paul Brossier, Mark Sandler and Mark Plumbley
- “A hierarchical approach to automatic musical genre classification”. Juan José Burred and Alexander Lerch

14.30 SESSION: MUSIC INFORMATION RETRIEVAL

- “MOSIEVIUS: Feature driven interactive audio mosaicing”. Ari Lazier and Perry Cook

- “Hierarchical Gaussian tree with inertia ratio maximization for the classification of large musical instrument databases”. Geoffroy Peeters and Xavier Rodet
- “System analysis and performance tuning for broadcast audio fingerprinting”. Eloi Batlle, Jaume Masip and Pedro Cano

15.20 COFFEE & TEA: FOYER OF PEOPLES PALACE

15.40 SESSION: SOUND MODIFICATION & EFFECTS

- “Frequency-domain techniques for high-quality voice modification”. Jean Laroche
- “Content-based melodic transformations of audio for a music processing application”. Emilia Gómez, Gilles Peterschmitt, Xavier Amatriain and Perfecto Herrera
- “An efficient audio time-scale modification algorithm for use in a sub-band implementation”. David Dorran and Robert Lawlor
- “A new approach to transient processing in the phase vocoder”. Axel Röbel
- “Description-driven context-sensitive effects”. Adam T. Lindsay, Alan P. Parkes and Rosemary A. Fitzgerald

DAFX-03 IS ORGANISED IN COOPERATION WITH:

