

WEDNESDAY MAY, 29

ORAL SESSIONS

**ORAL S1. Sonic interactions**

Wednesday, May 29 (11:30- 13:00)

Session Chair:

S1.1.	<b>Towards a High-Performance Platform for Sonic Interaction Interfaces</b> Stefano Fasciani and Manohar Vohra
S1.2.	<b>Digital Manufacturing for Musical Applications: A Survey of Current Status and Future Outlook</b> Doga Cavdir
S1.3.	<b>Real Time Audio Digital Signal Processing with Faust and the Teensy</b> Romain Michon, Yann Orlarey, Stéphane Letz and Dominique Fober
S1.4.	<b>Sound Design through Large Audience Interaction</b> Kjetil Falkenberg Hansen, Martin Ljungdahl-Eriksson and Ricardo Atienza
S1.5.	<b>Evaluating a Continuous Sonic Interaction: Comparing a Performable Acoustic and Digital Everyday Sound</b> Fiona Keenan and Sandra Pauletto

**ORAL S2. Nordic SMC**

Wednesday, May 29 (14:30- 16:30)

Session Chair:

S2.1.	<b>Adaptive Loudness Compensation in Music Listening</b> Leonardo Fierro, Jussi Rämö and Vesa Välimäki
S2.2.	<b>Toward Automatic Tuning of the Piano</b> Joonas Tuovinen, Jamin Hu and Vesa Välimäki
S2.3.	<b>Real-time Control of Large-scale Modular Physical Models using the SenseL Morph</b> Silvin Willemsen, Nikolaj Andersson, Stefania Serafin and Stefan Bilbao
S2.4.	<b>An Interactive Music Synthesizer for Gait Training in Neurorehabilitation</b> Prithvi Kantan and Sofia Dahl
S2.5.	<b>From Vocal Sketching to Sound Models by Means of a Sound-Based Musical Transcription System</b> Claudio Panariello, Mattias Sköld, Emma Frid and Roberto Bresin
S2.6.	<b>Tempo and Metrical Analysis by Tracking Multiple Metrical Levels Using Autocorrelation</b> Olivier Lartillot and Didier Grandjean

WEDNESDAY MAY, 29

POSTER SESSION P1

Session Chair:

P1.1.	<b>DAW-Integrated Beat Tracking for Music Production</b> Brett Dalton, David Johnson and George Tzanetakis
P1.2.	<b>Interaction-based Analysis of Freely Improvised Music</b> Stefano Kalonaris
P1.3.	<b>Mechanical Entanglement: A Collaborative Haptic-Music Performance</b> Alexandros Kontogeorgakopoulos, George Sioros and Odysseas Klissouras
P1.4.	<b>State Dependency - Audiovisual interaction through brain states</b> Patrick Neff, Jan Schacher and Daniel Bisig
P1.5.	<b>Perceptual Evaluation of Modal Synthesis for Impact-Based Sounds</b> Adrián Barahona and Sandra Pauletto
P1.6.	<b>VIBRA - Technical and Artistic Issues in an Interactive Dance Project</b> Andreas Bergsland, Sigurd Saue and Pekka Stokke
P1.7.	<b>Musical Tempo and Key Estimation with Directional Convolutional Neural Networks</b> Hendrik Schreiber and Meinard Müller
P1.8.	<b>The Viking HRTF Dataset</b> Simone Spagnol, Kristján Bjarki Purkhús, Sverrir Karl Björnsson and Runar Unnthórsson
P1.9.	<b>Performing with Sound Sample-Controlled Gloves and Light-Controlled Arms</b> Frank Pecquet, Fotis Moschos, David Fierro and Justin Pecquet
P1.10.	<b>Melody Identification in Standard MIDI Files</b> Zheng Jiang and Roger Dannenberg
P1.11.	<b>Automatic Chord-Scale Recognition using Harmonic Pitch Class Profiles</b> Emir Demirel, Baris Bozkurt and Xavier Serra

**WEDNESDAY MAY, 29****DEMO SESSION D1**

Session Chair: Alberto Peinado

<b>D1.1.</b>	<b>Exciting Digital Resonators with Analogue Sound</b> Max Neupert and Clemens Wegener
<b>D1.2.</b>	<b>Melody Slot Machine</b> Masatoshi Hamanaka
<b>D1.3.</b>	<b>OM-AI: A Toolkit to Support AI-Based Computer-Assisted Composition Workflows in OpenMusic</b> Anders Vinjar and Jean Bresson
<b>D1.4.</b>	<b>URALi: a proposal of approach to real-time audio synthesis in Unity</b> Enrico Dorigatti
<b>D1.5.</b>	<b>A Sequencer with Decoupled Track Timing</b> Silvan David Peter and Gerhard Widmer
<b>D1.6.</b>	<b>Musicypher: Music for Message Encryption</b> Victor Jaime Marín and Alberto Peinado
<b>D1.7.</b>	<b>A Platform for Processing Sheet Music and Developing Multimedia Application</b> Fu-Hai Frank Wu
<b>D1.8.</b>	<b>Capturing the Reaction Time to Distinguish between Voice and Music</b> Alejandro Villena-Rodríguez, Lorenzo J. Tardón, Isabel Barbancho, Ana M. Barbancho, Irene Gómez-Plazas and María-José Varela-Salinas
<b>D1.9.</b>	<b>Physical Models and Real-Time Control with the Sensel Morph</b> Silvin Willemsen , Stefan Bilbao, Nikolaj Andersson and Stefania Serafin

THURSDAY MAY, 30

ORAL SESSIONS

ORAL S3. Augmented and virtual realities

Thursday, May 30 (09:00- 10:30)

Session Chair:

S3.1.	<b>Comparison and Implementation of Data Transmission Techniques through Analog Audio Signals in the Context of Augmented Mobile Instruments</b> Romain Michon, Yann Orlarey, Stéphane Letz and Dominique Fober
S3.2.	<b>Mass-Interaction Physical Models for Sound and Multi-Sensory Creation: Starting Anew</b> Jerome Villeneuve and James Leonard
S3.3.	<b>Exploring the Effects of Diegetic and Non-diegetic Audiovisual Cues on Decision-making in Virtual Reality</b> Anil Çamcı
S3.4.	<b>OSC-XR: A Toolkit for Extended Reality Immersive Music Interfaces</b> David Johnson, Daniela Damian and George Tzanetakis
S3.5.	<b>No Strings Attached: Force and Vibrotactile Feedback in a Guitar Simulation</b> Andrea Passalenti, Razvan Paisa, Niels Christian Nilsson, Nikolaj S. Andersson, Federico Fontana, Rolf Nordahl and Stefania Serafin

ORAL S4. SMC tools and methodologies

Thursday, May 30 (12:00- 13:00)

Session Chair:

S4.1.	<b>A Framework for the Evaluation of Interpolated Synthesizer Parameter Mapping</b> Darrell Gibson and Richard Polfreman
S4.2.	<b>Composing with Sounds: Designing an Object Oriented Daw for the Teaching of Sound-Based Composition</b> Stephen Pearse, Leigh Landy, Duncan Chapman, David Holland and Mihai Eni
S4.3.	<b>Insights in Habits and Attitudes Regarding Programming Sound Synthesizers: A Quantitative Study</b> Gordan Kreković

THURSDAY MAY, 30

ORAL S5. Sound synthesis & analysis

Thursday, May 30 (14:30- 16:30)

Session Chair:

S5.1.	<b>Experimental Verification of Dispersive Wave Propagation on Guitar Strings</b> Dmitri Kartofelev, Joann Arro and Vesa Välimäki
S5.2.	<b>Real-Time Modeling of Audio Distortion Circuits with Deep Learning</b> Eero-Pekka Damskägg, Lauri Juvela and Vesa Välimäki
S5.3.	<b>MI-GEN~: An Efficient and Accessible Mass-Interaction Sound Synthesis Toolbox</b> James Leonard and Jerome Villeneuve
S5.4.	<b>Combining Texture-Derived Vibrotactile Feedback, Concatenative Synthesis and Photogrammetry for Virtual Reality Rendering</b> Eduardo Magalhães, Emil Rosenlund Høeg, Gilberto Bernardes, Jon Ram Bruun-Pedersen, Stefania Serafin and Rolf Nordahl
S5.5.	<b>Percussion synthesis using loopback frequency modulation oscillators</b> Jennifer Hsu and Tamara Smyth
S5.6.	<b>Deep Linear Autoregressive Model for Interpretable Prediction of Expressive Tempo</b> Akira Maezawa
S5.7.	<b>Metrics for the Automatic Assessment of Music Harmony Awareness in Children</b> Federico Avanzini, Adriano Baratè, Luca Andrea Ludovico and Marcella Mandanici

THURSDAY MAY, 30

POSTER SESSION P2

Session Chair:

P2.1.	<b>RaveForce: A Deep Reinforcement Learning Environment for Music Generation</b> Qichao Lan, Jim Tørresen and Alexander Refsum Jensenius
P2.2.	<b>Music Temperaments Evaluation Based on Triads</b> Meihui Tong and Satoshi Tojo
P2.3.	<b>Composing space in the space: An Augmented and Virtual Reality sound spatialization system</b> Giovanni Santini
P2.4.	<b>Graph Based Physical Models for Sound Synthesis</b> Pelle Juul Christensen and Stefania Serafin
P2.5.	<b>ADPET: Exploring the Design, Pedagogy, and Analysis of a Mixed Reality Application for Piano Training</b> Lynda Gerry, Sofia Dahl and Stefania Serafin
P2.6.	<b>Chord Prediction with The Annotated Beethoven Corpus</b> Kristoffer Landsnes, Liana Mehrabyan, Victor Wiklund, Fabian C. Moss, Robert Lieck and Martin Rohrmeier
P2.7.	<b>Sonic Characteristics of Robots in Films</b> Adrian B. Latupeirissa, Emma Frid and Roberto Bresin
P2.8.	<b>Virtual Reality Music Intervention to Reduce Social Anxiety in Adolescents Diagnosed with Autism Spectrum Disorder</b> Ali Adjorlu, Nathaly Belen Betancourt Barriga and Stefania Serafin
P2.9.	<b>Teach Me Drums: Learning Rhythms through the Embodiment of a Drumming Teacher in Virtual Reality</b> Stefania Serafin, Mie Moth-Poulsen, Tomasz Bednarz and Volker Kuchelmeister
P2.10.	<b>Real-time Mapping of Periodic Dance Movements to Control Tempo in Electronic Dance Music</b> Lilian Jap and Andre Holzapfel
P2.11.	<b>Increasing Access to Music in SEN Settings</b> Tom Davis, Daniel Pierson and Ann Bevan

THURSDAY MAY, 30

DEMO SESSION D2

Session Chair:

D2.1.	<b>Interacting with Musebots (that don't really listen)</b> Arne Eigenfeldt
D2.2.	<b>Extending Jamsketch: An Improvisation Support System</b> Akane Yasuhara, Junko Fujii and Tetsuro Kitahara
D2.3.	<b>Visualizing Music Genres using a Topic Model</b> Swaroop Panda, Vinay P. Namboodiri and Shatarupa Thakurta Roy
D2.4.	<b>CompoVOX: Real-Time Sonification of Voice</b> Daniel Hernán Molina Villota, Antonio Jurado-Navas and Isabel Barbancho
D2.5.	<b>Facial Activity Detection to Monitor Attention and Fatigue</b> Oscar Cobos, Jorge Munilla, Ana M. Barbancho, Isabel Barbancho and Lorenzo J. Tardón
D2.6.	<b>The Chordinator: An Interactive Music Learning Device</b> Eamon McCoy, John Greene, Jared Henson, James Pinder, Jonathon Brown and Claire Arthur
D2.7.	<b>Automatic Chord Recognition in Music Education Applications</b> Sascha Grollmisch and Estefania Cano
D2.8.	<b>Sonic Sweetener Mug</b> Signe Lund Mathiesen, Derek Victor Byrne and Qian Janice Wang

**FRIDAY MAY, 31**

**ORAL SESSIONS**

**ORAL S6. Music information processing**

Friday, May 31 (09:00- 10:30)

Session Chair:

<b>S6.1.</b>	<b>Learning to Generate Music with BachProp</b> Florian Colombo, Johanni Brea and Wulfram Gerstner
<b>S6.2.</b>	<b>Offline Score Alignment for Realistic Music Practice</b> Yucong Jiang, Fiona Ryan, David Cartledge and Christopher Raphael
<b>S6.3.</b>	<b>Piano Score-Following by Tracking Note Evolution</b> Yucong Jiang and Christopher Raphael
<b>S6.4.</b>	<b>Adaptive Score-Following System by Integrating Gaze Information</b> Kaede Noto, Yoshinari Takegawa and Keiji Hirata
<b>S6.5.</b>	<b>Alternative Measures: A Musicologist Workbench for Popular Music</b> Beach Clark and Claire Arthur

**ORAL S7. Multimodality and (e)motions**

Friday, May 31 (12:00- 13:00)

Session Chair:

<b>S7.1.</b>	<b>VocalistMirror: A Singer Support Interface for Avoiding Undesirable Facial Expressions</b> Kin Wah Edward Lin, Tomoyasu Nakano and Masataka Goto
<b>S7.2.</b>	<b>Audiovisual perception of arousal, valence, and effort in contemporary cello performance</b> Hanna Järveläinen
<b>S7.3.</b>	<b>Dancing dots - investigating the link between dancer and musician in Swedish Folk Dance</b> Olof Misgeld, Andre Holzapfel and Sven Ahlbäck

**FRIDAY MAY, 31**

**ORAL S8. Machine learning**

Friday, May 31 (14:30- 16:30)

Session Chair:

<b>S8.1.</b>	<b>Conditioning a Recurrent Neural Network to synthesize musical instrument transients</b> Lonce Wyse and Muhammad Huzaifah
<b>S8.2.</b>	<b>Predicting Perceived Dissonance of Piano Chords Using a Chord-Class Invariant CNN and Deep Layered Learning</b> Juliette Dubois, Anders Elowsson and Anders Friberg
<b>S8.3.</b>	<b>Belief Propagation algorithm for Automatic Chord Estimation</b> Vincent P. Martin, Sylvain Reynal, Dogac Basaran and H�el�ene-Camille Crayencour
<b>S8.4.</b>	<b>HMM-Based Glissando Detection for Recordings of Chinese Bamboo Flute</b> Changhong Wang, Emmanouil Benetos, Xiaojie Meng and Elaine Chew.
<b>S8.5.</b>	<b>Towards CNN-based Acoustic Modeling of Seventh Chords for Automatic Chord Recognition</b> Christon-Ragavan Nadar, Jakob Abe�er and Sascha Grollmisch
<b>S8.6.</b>	<b>From Jigs and Reels to Schottisar och Polskor: Generating Scandinavian-like Folk Music with Deep Recurrent Networks</b> Simon Mossmyr, Eric Hallstr�om, Bob L. Sturm, Victor Hansjons Vegeborn and Jonas Wedin
<b>S8.7.</b>	<b>Modeling and Learning Rhythm Structure</b> Francesco Foscarin, Florent Jacquemard and Philippe Rigaux

**FRIDAY MAY, 31**
**POSTER SESSION P3**

Session Chair:

<b>P3.1.</b>	<b>Autoencoders for music sound modeling: a comparison of linear, shallow, deep, recurrent and variational models</b> Fanny Roche, Thomas Hueber, Samuel Limier and Laurent Girin
<b>P3.2.</b>	<b>Polytopic reconfiguration: a graph-based scheme for the multiscale transformation of music segments and its perceptual assessment</b> Valentin Gillot and Frédéric Bimbot
<b>P3.3.</b>	<b>Non-Linear Contact Sound Synthesis for Real-Time Audio-Visual Applications using Modal Textures</b> Martin Maunsbach and Stefania Serafin
<b>P3.4.</b>	<b>Analysis of Vocal Ornamentation in Iranian Classical Music</b> Sepideh Shafiei
<b>P3.5.</b>	<b>VUSAA: An Augmented Reality Mobile App for Urban Soundwalks</b> Josué Moreno and Vesa Norilo
<b>P3.6.</b>	<b>A Framework for Multi-f0 Modeling in SATB Choirs</b> Helena Cuesta, Emilia Gómez and Pritish Chandna
<b>P3.7.</b>	<b>Representations of Self-Coupled Modal Oscillators with Time-Varying Sounding Frequency</b> Tamara Smyth and Jennifer Hsu
<b>P3.8.</b>	<b>SonaGraph. A cartoonified spectral model for music composition</b> Andrea Valle
<b>P3.9.</b>	<b>Sound in Multiples: Synchrony and Interaction Design of Coupled-Oscillator Networks</b> Nolan Lem
<b>P3.10.</b>	<b>Jazz Mapping an Analytical and Computational Approach to Jazz Improvisation</b> Dimitrios Vassilakis, Anastasia Georgaki and Christina Anagnostopoulou
<b>P3.11.</b>	<b>Visual Pitch Estimation</b> A. Sophia Koepke, Olivia Wiles and Andrew Zisserman

**FRIDAY MAY, 31**
**DEMO SESSION D3**

Session Chair: Ana M. Barbancho

<b>D3.1.</b>	<b>Miningsuite: A Comprehensive Matlab Framework For Signal, Audio and Music Analysis, Articulating Audio And Symbolic Approaches</b> Olivier Lartillot
<b>D3.2.</b>	<b>Drawing Geometric Figures with Braille Description through a Speech Recognition System</b> África Chamorro, Ana M. Barbancho, Isabel Barbancho and Lorenzo J. Tardón
<b>D3.3.</b>	<b>Interactive Music Training System</b> Daniel Moreno, Isabel Barbancho, Ana M. Barbancho and Lorenzo J. Tardón
<b>D3.4.</b>	<b>Copying Clave – A Turing Test</b> Simon Blackmore
<b>D3.5.</b>	<b>Resonance Improviser: A System for Transmitting the Embodied Sensations of Vocalization Between Two People During Improvisation</b> Tejaswinee Kelkar and Lynda Gerry
<b>D3.6.</b>	<b>Finding New Practice Material through Chord-Based Exploration of a Large Music Catalogue</b> Johan Pauwels and Mark B. Sandler
<b>D3.7.</b>	<b>Internal Complexity for Exploratory Interaction</b> Mads Hoby
<b>D3.8.</b>	<b>Adaptive Body Movement Sonification in Music and Therapy</b> Christian Baumann, Johanna Friederike Baarlink and Jan-Torsten Milde