

Program

First Day: Monday May 21, 2012

9:00-9:15

Opening Remarks

Georg Essl, Jason Corey

9:15-10:30

Keynote 1: David Wessel

Composing Instruments that we can Touch

10:30-11:00

Coffee Break

11:00-12:30

Paper Session I – Actuation and Visualization (Ballroom)

11:00-11:25

Pencil Fields: An Expressive Low-Tech Performance Interface for Analog Synthesis

Palle Dahlstedt

11:25-11:45

Left and right-hand guitar playing techniques detection

Loïc Reboursière, Otso Lähdeoja, Thomas Drugman, Stéphane Dupont, Cécile Picard-Limpens, Nicolas Riche

11:45-12:10

Temporal Control In the EyeHarp Gaze-Controlled Musical Interface

Zacharias Vamvakousis, Rafael Ramirez

12:10-12:30

Investigation of Gesture Controlled Articulatory Vocal Synthesizer using a Bio-Mechanical Mapping Layer

Johny Wang, Nicolas d'Alessandro, Sidney Fels, Robert Pritchard

12:30-1:30

Lunch Break

1:30-2:30

Poster Session I (Koessler)

Towards Speeding Audio EQ Interface Building with Transfer Learning

Bryan Pardo, David Little, Darren Gergle

Better Drumming Through Calibration: Techniques for Pre-Performance Robotic Percussion Optimization

Jim Murphy, Ajay Kapur, Dale Carnegie

An Interface for Emotional Expression in Audio-Visuals

Kamer Ali Yuksel, Sinan Buyukbas, Elif Ayiter

Play-A-Grill: Music to Your Teeth

Aisen Caro Chacin

Interactive Mobile Music Performance with Digital Compass

Bongjun Kim, Woon Seung Yeo

Multiple Pianolas in Antheil's Ballet mécanique

Paul D. Lehrman

A Component-Based Approach for Modeling Plucked-Guitar Excitation Signals

Raymond V. Migneco, Youngmoo E. Kim

Graphic Score Grammars for End-Users

Alistair G. Stead, Alan F. Blackwell, Samuel Aaron

Mapping to musical actions in the FILTER system

Doug Van Nort, Jonas Braasch, Pauline Oliveros

Musician Assistance and Score Distribution (MASD)

Nathan Magnus, David Gerhard

A Design Approach to Engage with Audience with Wearable Musical Instruments: Sound Gloves

Chi-Hsia Lai, Koray Tahiroglu

A New Keyboard-Based, Sensor-Augmented Instrument for Live Performance

Red Wierenga

Virtual Pottery: An Interactive Audio-Visual Installation

Yoon Chung Han, Byeong-jun Han

A Survey and Thematic Analysis Approach as Input to the Design of Mobile Music GUIs

Atau Tanaka, Adam Parkinson, Zack Settel, Koray Tahiroglu

Ecological considerations for participatory design of DMIs

A. Cavan Fyans, Adnan Marquez-Borbon, Paul Stapleton, Michael Gurevich

Sensor Based Measurements of Musicians' Synchronization Issues

T. Grosshauser, V. Candia, H. Hildebrandt, G. Tröster

Gest-O: Performer Gestures Used to Expand the Sounds of the Saxophone

John Melo, Daniel Gómez, Miguel Vargas

The Human Skin as an Interface for Musical Expression

Alexander Müller-Rakow, Jochen Fuchs

Making Sound Synthesis Accessible to Children

Christoph Trappe

Developing the Dance Jockey System for Musical Interaction with the Xsens MVN Suit

Ståle A. Skogstad, Kristian Nymoen, Yago de Quay, Alexander Refsum Jensenius

Introducing CrossMapper: Another Tool for Mapping Musical Control Parameters

Liam O'Sullivan, Dermot Furlong, Frank Boland

1:30-2:30

Posters & Demos (Room B)

Music for Flesh II: informing interactive music performance with the viscerality of the body system

Marco Donnarumma

1:30-2:30

Demos (Room C)

Simpletones: A System of Collaborative Physical Controllers for Novices

Francisco Zamorano

1:30-2:30

Demos (Henderson)

Sonik Spring

Tomás Henriques

DrumTop: Playing with Everyday Objects

Akito van Troyer

The EMvibe: An Electromagnetically Actuated Vibraphone

N. Cameron Britt, Jeff Snyder, Andrew McPherson

The 'interactive Music Awareness Program' (IMAP) for Cochlear Implant Users

Benjamin R. Oliver, Rachel M. van Besouw, David R. Nicholls

SenSynth: a Mobile Application for Dynamic Sensor to Sound Mapping

Ryan McGee, Daniel Ashbrook, Sean White

The Electrumpet, Additions and Revisions

Hans Leeuw

Borderlands: An Audiovisual Interface for Granular Synthesis

Chris Carlson, Ge Wang

1:30-2:30

Posters & Demos (Room D)

MuDI - Multimedia Digital Instrument for Composing and Performing Digital Music for Films in Real-time

Pedro Patrício

The body as mediator of music in the Emotion Light

Adinda van 't Klooster

Studying Aesthetics of Interaction in a Musical Interface Design Process Through 'Aesthetic Experience Prism'

Matti Luhtala, Markku Turunen, Ilkka Niemeläinen, Johan Plomp

Sinkapater - An Untethered Beat Sequencer

Jiffer Harriman

LoopJam: turning the dance floor into a collaborative instrumental map

Christian Frisson, Stéphane Dupont, Julien Leroy, Alexis Moinet, Thierry Ravet, Xavier Siebert, Thierry Dutoit

PocoPoco: A Kinetic Musical Interface With Electro-Magnetic Levitation Units

Yuya Kikukawa, Takaharu Kanai, Tatsuhiko Suzuki, Toshiki Yoshiike, Tetsuaki Baba, Kumiko Kushiya

 1:30-2:30

Posters & Demos (Michigan)

Augmented Piano Performance using a Depth Camera

Qi Yang, Georg Essl

TC-11: A Programmable Multi-Touch Synthesizer for the iPad

Kevin Schlei

Pencil Fields: An Expressive Low-Tech Performance Interface for Analog Synthesis

Palle Dahlstedt

The Planetarium as a Musical Instrument

Dale E. Parson, Phillip A. Reed

The JD-1: an Implementation of a Hybrid Keyboard/Sequencer Controller for Analog Synthesizers

Jeff Snyder, Andrew McPherson

Musical Interaction Design with the CUI32Stem: Wireless Options and the GROVE system for prototyping new interfaces

Dan Overholt

The Music Ball Project: Concept, Design, Development, Performance

Alexander Refsum Jensenius, Arve Voldsund

Many-Person Instruments for Computer Music Performance

Michael Rotondo, Nick Kruge, Ge Wang

Kritaanjali: A Robotic Harmonium for Performance, Pedagogy and Research

Ajay Kapur, Jim Murphy, Dale Carnegie

 2:30-3:30

Paper Session II – Augmented Instruments I (Ballroom)

2:30-2:50

Further Developments in the Electromagnetically Sustained Rhodes Piano

Greg Shear, Matthew Wright

- 4:40-5:00 A Qualitative Evaluation of Augmented Human-Human Interaction in Mobile Group Improvisation
Roberto Pugliese, Koray Tahiroglu, Callum Goddard, James Nesfield
- 3:10-3:30 The EMvibe: An Electromagnetically Actuated Vibraphone
N. Cameron Britt, Jeff Snyder, Andrew McPherson

3:30-4:00 Coffee Break

4:00-5:00 Paper Session III – Gesture (Ballroom)

- 4:00-4:20 Musical Interaction with Hand Posture and Orientation: A Toolbox of Gestural Control Mechanisms
Thomas Mitchell, Sebastian Madgwick, Imogen Heap
- 4:20-4:40 Digito: A Fine-Grain Gesturally Controlled Virtual Musical Instrument
Nicholas Gillian, Joseph A. Paradiso
- 4:40-5:00 VOICON: An Interactive Gestural Microphone For Vocal Performance
Yongki Park, Hoon Heo, Kyogu Lee

5:30-8:30 Banquet (Cobblestone Farm)

9:00-10:30 Evening Concert (Lydia Mendelssohn Theatre)

- Floating Pionts II
Matthias Schneiderbanger, Michael Vierling
- Water Birds
Maria Helmuth, Rebecca Danard
- 4 Hands iPhone
Atau Tanaka, Adam Parkinson
- Aphasia
Mark Applebaum

Violent Dreams
Hans Leeuw, Diemo Schwarz

the ellipsis catalog
Kevin Patton, Butch Rovon

Clarinet (Albino Butterfly)
Martin Marier

11:00

Overnight Concert (North Quad Space 2435)

Music for Sleeping & Waking Minds
*Gascia Ouzounian, R. Benjamin Knapp, Eric Lyon, R. Luke
DuBois*

Second Day: Tuesday May 22nd 2012

9:00-10:30	Paper Session IV (Tabletop/Multitouch/Laptop)
9:00-9:25	Towards fast multi-point force and hit detection in table-tops using mechanically intercoupled Force Sensing Resistors <i>Mathieu Bosi, Sergi Jordà</i>
9:25-9:45	TouchKeys: Capacitive Multi-Touch Sensing on a Physical Keyboard <i>Andrew McPherson</i>
9:45-10:05	Wicked Problems and Design Considerations in Composing for Laptop Orchestra <i>Luke Dahl</i>
10:05-10:30	Collaborative Composition and Socially Constructed Instruments: Ensemble Laptop Performance Through the Lens of Ethnography <i>Graham Booth, Michael Gurevich</i>
10:30-11:00	Coffee Break
11:00-12:30	Paper Session V (Machine Learning)
11:00-11:20	Unsupervised Play: Machine Learning Toolkit for Max <i>Benjamin D. Smith, Guy E. Garnett</i>
11:20-11:45	Exploring Reinforcement Learning for Mobile Percussive Collaboration <i>Nate Derbinsky, Georg Essl</i>
11:45-12:05	Liveness and Flow in Notation Use <i>Chris Nash, Alan Blackwell</i>
12:05-12:30	Movement to Emotions to Music: Using Whole Body Emotional Expression as an Interaction for Electronic Music Generation <i>Alexis Clay, Nadine Couture, Elodie Decarsin, Myriam Desainte-Catherine, Pierre-Henri Vulliard, Joseph Larralde</i>

12:30-1:30 **Lunch Break**

1:30-2:30 **Posters Session II (Henderson)**

The 'Interface' in Site-Specific Sound Installation
Kirsty Beilharz, Aengus Martin

Non-invasive sensing and gesture control for pitched percussion hyper-instruments using the Kinect
Shawn Trail, Michael Dean, Gabrielle Odowichuk, Tiago Fernandes Tavares, Peter Driessen, W. Andrew Schloss, George Tzanetakis

Real-time Modification of Music with Dancer's Respiration Pattern
Jeong-seob Lee, Woon Seung Yeo

Performing experimental music by physical simulation
Julien Castet

Wireless Interactive Sensor Platform for Real-Time Audio-Visual Experience
Jia-Liang Lu, Da-Lei Fang, Yi Qin, Jiu-Qiang Tang

The Gesturally Extended Piano
William Brent

Electric Slide Organistrum
Martin Piñeyro

NIME Education at the HKU, Emphasizing performance
Hans Leeuw, Jorrit Tamminga

1:30-2:30 **Posters & Demos (Michigan)**

Granular Learning Objects for Instrument Design and Collaborative Performance in K-12 Education
Ivica Bukvic, Liesl Baum, Bennett Layman, Kendall Woodard

SABRe: The Augmented Bass Clarinet
Sébastien Schiesser, Jan C. Schacher

Bubble Drum-agog-ing: Polyrhythm Games & Other Inter Activities

Jay Alan Jackson

DIRTI - Dirty Tangible Interfaces

Matthieu Savary, Diemo Schwarz, Denis Pellerin

Direct and surrogate sensing for the Gyl african xylophone

Shawn Trail, Tiago Fernandes Tavares, Dan Godlovitch, George Tzanetakis

Temporal Control In the EyeHarp Gaze-Controlled Musical Interface

Zacharias Vamvakousis, Rafael Ramirez

1:30-2:30

Poster & Demo (Room B)

Tweet Harp: Laser Harp Generating Voice and Text of Real-time Tweets in Twitter

Ayaka Endo, Takuma Moriyama, Yasuo Kuhara

1:30-2:30

Posters & Demos (Room C)

MAGE – A Platform for Tangible Speech Synthesis

Maria Astrinaki, Nicolas d’Alessandro, Thierry Dutoit

Investigation of Gesture Controlled Articulatory Vocal Synthesizer using a Bio-Mechanical Mapping Layer

Johnty Wang, Nicolas d’Alessandro, Sidney Fels, Robert Pritchard

A Digital Mobile Choir: Joining Two Interfaces towards Composing and Performing Collaborative Mobile Music

Nicolas d’Alessandro, Aura Pon, Johnnty Wang, David Eagle, Ehud Sharlin, Sidney Fels

1:30-2:30

Posters & Demos (Room D)

SoundStrand: Composing with a Tangible Interface for Composing Music with Limited Degrees of Freedom

Eyal Shahar

Approaches to Collaboration in a Digital Music Ensemble

Ian Hattwick, Kojiro Umezaki

The Sound Space as Musical Instrument: Playing Corpus-Based Concatenative Synthesis

Diemo Schwarz

2:30-3:30 Paper Session VI (Mobile)

2:30-2:50 Comparing Motion Data from an iPod Touch to an Optical Infrared Marker-Based Motion Capture System

Kristian Nymoen, Arve Voldsund, Ståle A. Skogstad, Alexander Refsum Jensenius, Jim Torresen

2:50-3:10 massMobile - an Audience Participation Framework

Nathan Weitzner, Jason Freeman, Stephen Garrett, Yan-Ling Chen

3:10-3:30 AuRal: A Mobile Interactive System for Geo-Locative Audio Synthesis

Jesse Allison, Christian Dell

3:30-4:00 Coffee Break

4:00-5:00 Installation Time

5:00-7:00 Dinner Break

7:00-8:30 Evening Concert (Lydia Mendelssohn Theatre)

Of Dust and Sand

Per Bloland

Jack Walk

Scott Deal

Desamor I

Roberto Morales-Manzanares

Flue

Bill Hsu

Rachmaninoff-Wilson Medley

Jonathan Golove, Magnus Martensson

Thought.Projection

Robert Alexander, David Biedenbender, Anton Pugh, Suby Raman, Amanda Sari Perez, Sam L. Richards

Eigenspace

Mari Kimura, Tomoyuki Kato

Where Are You Standing?

Bongjun Kim, Woon Seung Yeo

9:00-10:30

Late Night Concert (Necto)

Pencil Fields

Palle Dahlstedt

Munich Eunuch

Daniel Brophy, Colin Labadie

Thunderclap For Six Kinetic Light Drums

Jenn Figg, Matthew McCormack, Paul Cox

InHands: Improvisation for Mobile Phones

Koray Tahiroğlu

Modified Attack

Levy Lorenzo

Music for Flesh II, interactive music for enhanced body

Marco Donnarumma

Third Day: Wednesday May 23rd 2012

9:00-10:30	Paper Session VII (Augmented Instruments II)
9:00-9:20	Extracting Human Expression For Interactive Composition with the Augmented Violin <i>Mari Kimura, Nicolas Rasamimanana, Frédéric Bevilacqua</i>
9:20-9:45	A Quantitative Comparison of Position Trackers for the Development of a Touch-less Musical Interface <i>Gabriel Vigliensoni, Marcelo M. Wanderley</i>
9:45-10:05	SABRe: The Augmented Bass Clarinet <i>Sébastien Schiesser, Jan C. Schacher</i>
10:30-11:00	Coffee Break
11:00-12:15	Keynote 2: David Huron <i>Sound in Action</i>
11:00-12:15	Keynote II: David Huron
12:15-1:30	Lunch Break
1:30-2:30	Poster Session III (Koessler)
	Real-Time Music Notation, Collaborative Improvisation, and Laptop Ensembles <i>Sang Won Lee, Jason Freeman, Andrew Collela</i>
	Drum Stroke Computing: Multimodal Signal Processing for Drum Stroke Identification and Performance Metrics <i>Jordan Hochenbaum, Ajay Kapur</i>
	A Comparative User Study of Two Methods of Control on a Multi-Touch Surface for Musical Expression <i>Blake Johnston, Owen Vallis, Ajay Kapur</i>

Tok! : A Collaborative Acoustic Instrument using Mobile Phones

Sang Won Lee, Ajay Srinivasamurthy, Gregoire Tronel, Weibin Shen, Jason Freeman

A Reactive Environment for Dynamic Volume Control

Dalia El-Shimy, Thomas Hermann, Jeremy Cooperstock

Palm-area sensitivity to vibrotactile stimuli above 1 kHz

Lonce Wyse, Suranga Nanayakkara, Paul Seekings, Sim Heng Ong, Elizabeth Taylor

Network spaces as collaborative instruments: WLAN trilateration for musical echolocation in sound art

Stelios Manousakis

Strategies for Engagement in Computer-Mediated Musical Performance

James Nesfield

EnActor: A Blueprint for a Whole Body Interaction Design Software Platform

Vangelis Lympouridis

Considering Audience's View Towards an Evaluation Methodology for Digital Musical Instruments

Jerônimo Barbosa, Filipe Calegario, Verônica Teichrieb, Geber Ramalho, Patrick McGlynn

Development and Evaluation of a ZigFlea-based Wireless Transceiver Board for CUI32

Jim Torresen, Øyvind N. Hauback, Dan Overholt, Alexander Refsum Jensenius

Perfect Take: Experience design and new interfaces for musical expression

Nicolas Makelberge, Álvaro Barbosa, André Perrotta, Luís Sarmiento Ferreira

A Customizable Sensate Surface for Music Control

Nan-Wei Gong, Nan Zhao, Joseph A. Paradiso

LOLbot: Machine Musicianship in Laptop Ensembles

Sidharth Subramanian, Jason Freeman, Scott McCoid

Kugelschwung - a Pendulum-based Musical Instrument

Jamie Henson, Benjamin Collins, Alexander Giles, Kathryn Webb, Matthew Livingston, Thomas Mortensson

A Dimension Space for Evaluating Collaborative Musical Performance Systems

Ian Hattwick, Marcelo Wanderley

Using a seeing/blindfolded paradigm to study audience experiences of live-electronic performances with voice

Andreas Bergsland, Tone Åse

Exploring audio and tactile qualities of instrumentality with bowed string simulations

Olivier Tache, Stephen Sinclair, Jean-Loup Florens, Marcelo Wanderley

Optoelectronic Acquisition and Control Board for Musical Applications

Aorum Hollinger, Marcelo M. Wanderley

Bowing a vibration-enhanced force feedback device

Marcello Giordano, Stephen Sinclair, Marcelo M. Wanderley

DIY Hybrid Analog/Digital Modular Synthesis

Greg Surges

Patchwork: Multi-User Network Control of a Massive Modular Synthesizer

Brian Mayton, Gershon Dublon, Nicholas Joliat, Joseph A. Paradiso

1:30-2:30

Demo (Room B)

The Emotion in Motion Experiment: Using an Interactive Installation as a Means for Understanding Emotional Response to Music

Javier Jaimovich, Miguel Ortiz, Niall Coghlan, R. Benjamin Knapp

1:30-2:30

Poster & Demo (Room C)

Recontextualizing the Multi-touch Surface

Patrick McGlynn, Victor Lazzarini, Gordon Delap, Xiaoyu Chen

1:30-2:30

Posters & Demos (Henderson)

Unsupervised Play: Machine Learning Toolkit for Max
Benjamin D. Smith, Guy E. Garnett

TedStick: a Tangible Electrophonic Drumstick
Cory Levinson

Two Shared Rapid Turn Taking Sound Interfaces for Novices
Anne-Marie Skriver Hansen, Hans Jørgen Andersen, Pirkko Raudaskoski

Mobile Controls On-The-Fly: An Abstraction for Distributed NIMES
Charles Roberts, Graham Wakefield, Matthew Wright

A Voice Interface for Sound Generators: Adaptive and Automatic Mapping of Gestures to Sound
Stefano Fasciani, Lonce Wyse

The Dual-Analog Gamepad as a Practical Platform for Live Electronics Instrument and Interface Design
Christopher Ariza

FutureGrab: A wearable synthesizer using vowel formants
Yoonchang Han, Jinsoo Na, Kyogu Lee

1:30-2:30

Posters & Demos (Room D)

Musician Maker: Play Expressive Music without Practice
John Buschert

Designing for Cumulative Interactivity: The derivations System
Benjamin Carey

Crossole: A Gestural Interface for Composition, Improvisation and Performance using Kinect
Sertan Sentürk, Sang Won Lee, Avinash Sastry, Anosh Daruwalla, Gil Weinberg

From the Eyes to the Ears
Zacharias Vamvakousis

Kinetic Light Drums / Community Beacons
Matthew McCormack, Jenn Figg

1:30-2:30

Posters & Demos (Michigan)

Designing Mappings for Musical Interfaces Using Preset Interpolation

Martin Marier

TouchKeys: Capacitive Multi-Touch Sensing on a Physical Keyboard

Andrew McPherson

Concept Tahoe: Microphone Midi Control

Dan Moses Schlessinger

The Deckle Project : A Sketch of Three Sensors

Hongchan Choi, John Granzow, Joel Sadler

Instant Instrument Anywhere: A Self-Contained Capacitive Synthesizer

David B. Gerhard, Brett Park

Digito: A Fine-Grain Gesturally Controlled Virtual Musical Instrument

Nicholas Gillian, Joseph A. Paradiso

Node and Message Management with the JunctionBox Interaction Toolkit

Lawrence Fyfe, Adam Tindale, Sheelagh Carpendale

AuRal: A Mobile Interactive System for Geo-Locative Audio Synthesis

Jesse Allison, Christian Dell

Empathetic Interactive Music Video Experience

Myunghye Lee, Youngsun Kim, Gerard Jounghyun Kim

The Fingerphone: a Case Study of Sustainable Instrument Redesign

Adrian Freed

2:30-3:30

Paper Session VIII (Hardware platforms & toolkits)

2:30-2:50

Musical Interaction Design with the CUI32Stem: Wireless Options and the GROVE system for prototyping new interfaces

Dan Overholt

2:50-3:10

The JD-1: an Implementation of a Hybrid Keyboard/Sequencer Controller for Analog Synthesizers

Jeff Snyder, Andrew McPherson

3:10-3:30 To be inside someone else's dream: On Music for Sleeping & Waking Minds
Gascia Ouzounian, R. Benjamin Knapp, Eric Lyon, R. Luke DuBois

3:30-4:00 Coffee Break

4:00-5:00 Paper Session IX (Augmented Instruments III)

4:00-4:20 Techniques and Circuits for Electromagnetic Instrument Actuation
Andrew McPherson

4:20-4:40 OMaxist Dialectics: Capturing, Visualizing and Expanding Improvisations
Benjamin Lévy, Georges Bloch, Gérard Assayag

2:50-3:10 An Electronic Bagpipe Chanter for Automatic Recognition of Highland Piping Ornamentation
Duncan W. H. Menzies, Andrew McPherson

7:00-8:30 Evening Concert (Lydia Mendelssohn Theatre)

Motion-Influenced Composition

Eli Stine

Fragments

Thomas Ciufu

Fragmentation

Alberto Novello

Måne Havn (mounhoun): An Exploration of Gestural Language for Pitched Percussion

Shawn Trail, Thor Kell, Gabrielle Odowichuk

Texturologie 12: Gesture Studies

James Caldwell

Mimi: Multi-modal Interaction for Musical Improvisation

Isaac Schankler, Alexandre François, Elaine Chew

Ambiguous Devices

Paul Stapleton, Tom Davis

9:00-11:00

Late Night Concert (Necto)

The Theremin Orchestra

Mercedes Blasco

Stelaextraction

Alexander Dupuis

Fieldwork

Christopher Burns

four fragments—A Performance for Swarming Robotics

*Yuta Uozumi, Keisuke Oyama, Jun Tomioka, Hiromi Okamoto,
Takayuki Kimura*

Sandbox#3.6

Pierre Alexandre Tremblay

DaisyLab, a Phonetic Deconstruction of Humankind

Nicolas d'Alessandro, Diemo Schwarz