SESSION LIST

1 : Evaluation and Modeling
2 : Posters and Demos I
3 : Robotics and New Interfaces
4 : Electroacoustics
5 : Computer Systems
6 : Posters and Demos II
7 : Haptics and Extended Instruments
8 : Design and Graphics
9 : Sensing and Conducting
10 : Posters and Demos III
11 : Control Strategies and Installations
12 : Mobile Music
Program 1 of the NIME 2009 Concert Schedule
Program 2 of the NIME 2009 Concert Schedule
Program 3 of the NIME 2009 Concert Schedule
Program 4 of the NIME 2009 Concert Schedule
NIME 2009 Installations
## Evaluation and Modeling (NIME 2009 Sessions)

*9am – 11am, Thursday June 4th 2009*

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>From Real to Virtual: A Comparison of Input Devices for Percussion Tasks</td>
<td>Mike Collicutt, Carmine Casciato, Marcelo M. Wanderley</td>
</tr>
<tr>
<td>7</td>
<td>Probabilistic Model of Pianists' Arm Touch Movements</td>
<td>Aristotelis Hadjakos, Erwin Aitenbichler, Max Mühlhäuser</td>
</tr>
<tr>
<td>13</td>
<td>A Quantitative Evaluation of the Differences Between Knobs and Sliders</td>
<td>Steven Gelineck, Stefania Serafin</td>
</tr>
<tr>
<td>19</td>
<td>Evaluation of 3D Haptic Target Rendering to Support Timing in Music Tasks</td>
<td>Ricardo Pedrosa, Karon E. MacLean</td>
</tr>
<tr>
<td>25</td>
<td>Evaluating Interactive Music Systems: An HCI Approach</td>
<td>William Hsu, Marc Sosnick</td>
</tr>
</tbody>
</table>
Posters and Demos I  
(NIME 2009 Sessions)

12:15pm – 1:45pm and 3:45pm – 4:30pm, Thursday June 4th 2009

29  The Ghetto Bastard: A Portable Noise Instrument  
Neal Spowage

31  The Navi Activity Monitor: Toward Using Kinematic Data to Humanize Computer Music  
Eric Humphrey, Colby Leider

33  Utilizing Tactile Feedback to Guide Movements Between Sounds  
Alexander Müller, Georg Essl

35  An Interface for Live Interactive Sonification  
Sam Ferguson, Kirsty Beilharz

37  Responsive Music Interfaces for Performance  
Alexander Reben, Mat Laibowitz, Joseph A. Paradiso

39  Hands on Stage: A Sound and Image Performance Interface  
Chi-Hsia Lai

41  The Vibrobyte: A Haptic Interface for Co-Located Performance  
Kyle McDonald, Dane Kouttron, Curtis Bahn, Jonas Braasch, Pauline Oliveros

43  Multi-Laser Gestural Interface — Solutions for Cost-Effective and Open Source Controllers  
Meason Wiley, Ajay Kapur

45  Mims: Interactive Multimedia Live Performance System  
Ryo Kanda, Mitsuyo Hashida, Haruhiro Katayose

Suguru Goto, Rob Powell

[Search] Posters and Demos I continues on next page ...
Posters and Demos I continued …

50  Life Game Orchestra as an Interactive Music Composition System Translating Cellular Patterns of Automata into Musical Scales
    Keisuke Ogawa, Yasuo Kuhara

52  Natural Materials on Stage: Custom Controllers for Aesthetic Effect
    John Toenjes

98  The Kalichord: A Physically Modeled Electro-Acoustic Plucked String Instrument
    Daniel Schlessinger, Julius O. Smith III

54  Controlling Live Generative Electronic Music with Deviate
    Sarah Keith

56  SpiralSet: A Sound Toy Utilizing Game Engine Technologies
    Andy Dolphin

58  LUMI: Live Performance Paradigms Utilizing Software Integrated Touch Screen and Pressure Sensitive Button Matrix
    Mingfei Gao, Craig Hanson

60  The SARC EyesWeb Catalog: A Pattern Recognition Toolbox for Musician-Computer Interaction
    Nicholas Gillian, R. Benjamin Knapp, Sile O'Modhrain

62  A 2D Fiducial Tracking Method Based on Topological Region Adjacency and Angle Information
    Hiroki Nishino
Robotics and New Interfaces (NIME 2009 Sessions)
1:45pm – 3:45pm, Thursday June 4th 2009

64  📄 Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction
     Jorge Solis, Takeshi Ninomiya, Klaus Petersen, Maasaki Takeuchi, Atsuo Takanishi

70  📄 The Creation of a Multi-Human, Multi-Robot Interactive Jam Session
     Gil Weinberg, Brian Blosser, Trishul Mallikarjuna, Aparna Raman

74  📄 MusicGrip: A Writing Instrument for Music Control
     Nan-Wei Gong, Mat Laibowitz, Joseph A. Paradiso

78  📄 Let Loose with WallBalls, a Collaborative Tabletop Instrument for Tomorrow
     Grant Partridge, Pourang Irani, Gordon Fitzell

82  📄 SORISU: Sound with Numbers
     Hye Ki Min

86  📄 The Tactus: A Tangible, Rhythmic Grid Interface Using Found-Objects
     Yotam Mann, Jeff Lubow, Adrian Freed

90  📄 Real-Time Phase Vocoder Manipulation by Runner’s Pace
     Jason A. Hockman, Marcelo M. Wanderley, Ichiro Fujinaga
Electroacoustics (NIME 2009 Sessions)
4:30pm – 6pm, Thursday June 4th 2009

94 A Discussion of Multidimensional Mapping in Nymophone2
Kristian Nymoen, Alexander Refsum Jensenius

98 The Kalichord: A Physically Modeled Electro-Acoustic Plucked String Instrument
Daniel Schlessinger, Julius O. Smith III

102 Augmenting Chordophones with Hybrid Percussive Sound Possibilities
Otso Lähdeoja

106 An Electroacoustically Controlled Vibrating Plate
Mark Kahrs, David Skulina, Stefan Bilbao, Murray Campbell

110 Don’t Forget the Loudspeaker — A History of Hemispherical Speakers at Princeton, Plus a DIY Guide
Scott Smallwood, Perry R. Cook, Dan Trueman, Lawrence McIntyre
Computer Systems
(NIME 2009 Sessions)
9am – 11am, Friday June 5th 2009

116  Features and Future of Open Sound Control Version 1.1 for NIME
     Adrian Freed, Andrew Schmeder

121  A Low-Level Embedded Service Architecture for Rapid DIY Design of Real-Time Musical Instruments
     Andrew Schmeder, Adrian Freed

125  Firmata: Towards Making Microcontrollers Act Like Extensions of the Computer
     Hans-Christoph Steiner

131  Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork
     Marije A.J. Baalman, Harry C. Smoak, Christopher L. Salter, Joseph Malloch, Marcelo M. Wanderley

135  Challenges and Performance of High-Fidelity Audio Streaming for Interactive Performances
     Nicolas Bouillot, Jeremy R. Cooperstock

141  “Extension du Corps Sonore” — Dancing Viola
     Todor Todoroff, Frédéric Bettens, Loïc Reboursière, Wen-Yang Chu
### Posters and Demos II (NIME 2009 Sessions)

**12:15pm – 1:45pm and 3:45pm – 4:30pm, Friday June 5th 2009**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>Real-Time Phase Vocoder Manipulation by Runner’s Pace</td>
<td>Jason A. Hockman, Marcelo M. Wanderley, Ichiro Fujinaga</td>
</tr>
<tr>
<td>82</td>
<td>SORISU: Sound with Numbers</td>
<td>Hye Ki Min</td>
</tr>
<tr>
<td>147</td>
<td>The elBo and footPad: Toward Personalized Hardware for Audio Manipulation</td>
<td>Colby Leider, Doug Mann, Daniel Plazas, Michael Battaglia, Reid Draper</td>
</tr>
<tr>
<td>149</td>
<td>The Midi-AirGuitar: A Serious Musical Controller with a Funny Name</td>
<td>Langdon Crawford, William David Fastenow</td>
</tr>
<tr>
<td>151</td>
<td>An Early Prototype of the Augmented PsychoPhone</td>
<td>Niels Böttcher, Smilen Dimitrov</td>
</tr>
<tr>
<td>153</td>
<td>Catch Your Breath — Musical Biofeedback for Breathing Regulation</td>
<td>Diana Siwiak, Jonathan Berger, Yao Yang</td>
</tr>
<tr>
<td>155</td>
<td>A Wii-Based Gestural Interface for Computer Conducting Systems</td>
<td>Lijuan Peng, David Gerhard</td>
</tr>
<tr>
<td>157</td>
<td>Chess-Based Composition and Improvisation for Non-Musicians</td>
<td>Dale E. Parson</td>
</tr>
<tr>
<td>159</td>
<td>MagNular: Symbolic Control of an External Sound Engine Using an Animated Interface</td>
<td>Andy Dolphin</td>
</tr>
<tr>
<td>161</td>
<td>AUDIO ORIENTEERING — Navigating an Invisible Terrain</td>
<td>Noah Feehan</td>
</tr>
<tr>
<td>163</td>
<td>Developing the Cyclotactor</td>
<td>Staas de Jong</td>
</tr>
</tbody>
</table>

[Search] Posters and Demos II continues on next page ...
Posters and Demos II continued …

86  The Tactus: A Tangible, Rhythmic Grid Interface Using Found-Objects
    Yotam Mann, Jeff Lubow, Adrian Freed

207 Designing for Conversational Interaction
    Andrew Johnston, Linda Candy, Ernest Edmonds

165 midOSC: A Gumstix-Based MIDI-to-OSC Converter
    Sébastien Schiesser

169 Parallel Processing System Design with “Propeller” Processor
    Yoichi Nagashima

171 Where Did It All Go Wrong? A Model of Error from the Spectator's Perspective
    A. Cavan Fyans, Michael Gurevich, Paul Stapleton

173 Advanced Techniques for Vertical Tablet Playing — An Overview of Two Years of
    Practicing the HANDSKETCH 1.x
    Nicolas d’Alessandro, Thierry Dutoit

175 Gyroscope-Based Conducting Gesture Recognition
    Andreas Höfer, Aristotelis Hadjakos, Max Mühlhäuser

[Search]
<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>177</td>
<td>Using Haptics to Assist Performers in Making Gestures to a Musical Instrument</td>
<td>Edgar Berdahl, Günter Niemeyer, Julius O. Smith III</td>
</tr>
<tr>
<td>183</td>
<td>Using Haptic Devices to Interface Directly with Digital Waveguide-Based Musical Instruments</td>
<td>Edgar Berdahl, Günter Niemeyer, Julius O. Smith III</td>
</tr>
<tr>
<td>187</td>
<td>Haptic Carillon — Analysis &amp; Design of the Carillon Mechanism</td>
<td>Mark Havryliv, Fazel Naghdy, Greg Schiemer, Timothy Hurd</td>
</tr>
<tr>
<td>193</td>
<td>The Electrumpet: A Hybrid Electro-Acoustic Instrument</td>
<td>Hans Leeuw</td>
</tr>
<tr>
<td>199</td>
<td>Sensor Technology and the Remaking of Instruments from the Past</td>
<td>Emmanuelle Gallin, Marc Sirguy</td>
</tr>
<tr>
<td>203</td>
<td>Twenty-First Century Piano</td>
<td>Sarah Nicolls</td>
</tr>
</tbody>
</table>
Design and Graphics (NIME 2009 Sessions)
4:30pm – 6pm, Friday June 5th 2009

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>207</td>
<td>Designing for Conversational Interaction</td>
<td>Andrew Johnston, Linda Candy, Ernest Edmonds</td>
</tr>
<tr>
<td>213</td>
<td>Designing for Style in New Musical Interactions</td>
<td>Michael Gurevich, Paul Stapleton, Peter Bennett</td>
</tr>
<tr>
<td>218</td>
<td>Re-Designing Principles for Computer Music Controllers: A Case Study of SqueezeVox</td>
<td>Maggie</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perry R. Cook</td>
</tr>
<tr>
<td>222</td>
<td>Interfacing Graphic and Musical Elements in Counterlines</td>
<td>Jaroslaw Kapuscinski, Javier Sanchez</td>
</tr>
<tr>
<td>226</td>
<td>FrameWorks 3D: Composition in the Third Dimension</td>
<td>Richard Polfreman</td>
</tr>
</tbody>
</table>
Sensing and Conducting (NIME 2009 Sessions)
9am – 11am, Saturday June 6th 2009

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td>Novel and Forgotten Current-Steering Techniques for Resistive Multitouch, Duotouch,</td>
<td>Adrian Freed</td>
</tr>
<tr>
<td></td>
<td>and Polytouch Position Sensing with Pressure</td>
<td></td>
</tr>
<tr>
<td>236</td>
<td>A Force-Sensitive Surface for Intimate Control</td>
<td>Randy Jones, Peter Driessen, Andrew Schloss, George Tzanetakis</td>
</tr>
<tr>
<td>242</td>
<td>A Flexible Mapping Editor for Multi-Touch Musical Instruments</td>
<td>Greg Kellum, Alain Crevoisien</td>
</tr>
<tr>
<td>246</td>
<td>Phalanger: Controlling Music Software with Hand Movement Using a Computer Vision</td>
<td>Chris Kiefer, Nick Collins, Geraldine Fitzpatrick</td>
</tr>
<tr>
<td></td>
<td>and Machine Learning Approach</td>
<td></td>
</tr>
<tr>
<td>250</td>
<td>The UBS Virtual Maestro: An Interactive Conducting System</td>
<td>Teresa Marrin Nakra, Yuri Ivanov, Paris Smaragdis, Chris Ault</td>
</tr>
<tr>
<td>256</td>
<td>The Vocal Augmentation and Manipulation Prosthesis (VAMP): A Conducting-Based Gestural</td>
<td>Elena Jessop</td>
</tr>
<tr>
<td></td>
<td>Controller for Vocal Performance</td>
<td></td>
</tr>
<tr>
<td>Posters and Demos III (NIME 2009 Sessions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:15pm – 1:45pm and 3:45pm – 4:30pm, Saturday June 6th 2009</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>256</td>
<td>The Vocal Augmentation and Manipulation Prosthesis (VAMP): A Conducting-Based Gestural Controller for Vocal Performance</td>
<td>Elena Jessop</td>
</tr>
<tr>
<td>303</td>
<td>Designing Smule's Ocarina: The iPhone's Magic Flute</td>
<td>Ge Wang</td>
</tr>
<tr>
<td>316</td>
<td>The Drummer: A Collaborative Musical Interface with Mobility</td>
<td>Andrea Bianchi, Woon Seung Yeo</td>
</tr>
<tr>
<td>193</td>
<td>The Electrumpet: A Hybrid Electro-Acoustic Instrument</td>
<td>Hans Leeuw</td>
</tr>
<tr>
<td>260</td>
<td>Double Slide Controller</td>
<td>Tomás Henriques</td>
</tr>
<tr>
<td>177</td>
<td>Using Haptics to Assist Performers in Making Gestures to a Musical Instrument</td>
<td>Edgar Berdahl, Günter Niemeyer, Julius O. Smith III</td>
</tr>
<tr>
<td>308</td>
<td>Scratch-Off: A Gesture Based Mobile Music Game with Tactile Feedback</td>
<td>Nicholas Gillian, Sile O'Modhrain, Georg Essl</td>
</tr>
<tr>
<td>213</td>
<td>Designing for Style in New Musical Interactions</td>
<td>Michael Gurevich, Paul Stapleton, Peter Bennett</td>
</tr>
<tr>
<td>218</td>
<td>Re-Designing Principles for Computer Music Controllers: A Case Study of SqueezeVox</td>
<td>Maggie Perry R. Cook</td>
</tr>
<tr>
<td>242</td>
<td>A Flexible Mapping Editor for Multi-Touch Musical Instruments</td>
<td>Greg Kellum, Alain Crevoisier</td>
</tr>
</tbody>
</table>

[Search] Posters and Demos III continues on next page …
Posters and Demos III continued …

236  A Force-Sensitive Surface for Intimate Control  
Randy Jones, Peter Driessen, Andrew Schloss, George Tzanetakis

262  HSP: A Simple and Effective Open-Source Platform for Implementing Haptic Musical Instruments  
Edgar Berdahl, Günter Niemeyer, Julius O. Smith III

246  Phalanger: Controlling Music Software with Hand Movement Using a Computer Vision and Machine Learning Approach  
Chris Kiefer, Nick Collins, Geraldine Fitzpatrick

264  Versum: Audiovisual Composing in 3D  
Tarik Barri

266  Towards a Humane Graphical User Interface for Live Electronic Music  
Jamie Bullock, Lamberto Coccioli

268  YARMI: An Augmented Reality Musical Instrument  
Tomás Laurenzo, Ernesto Rodríguez, Juan Fabrizio Castro

270  SpeedDial: Rapid and On-the-Fly Mapping of Mobile Phone Instruments  
Georg Essl

274  ForTouch: A Wearable Digital Ventriloquized Actor  
Sidney Fels, Robert Pritchard, Allison Lenters
Control Strategies and Installations (NIME 2009 Sessions)
1:45pm – 3:45pm, Saturday June 6th 2009

276  
Words, Movement and Timbre  
Alex McLean, Geraint Wiggins

280  
A Meta-Instrument for Interactive, On-the-Fly Machine Learning  
Rebecca Fiebrink, Dan Trueman, Perry R. Cook

286  
Action and Perception in Interactive Sound Installations: An Ecological Approach  
Jan C. Schacher

290  
The Argus Project: Underwater Soundscape Composition with Laser-Controlled Modulation  
Jonathon Kirk, Lee Weisert

293  
PlaySoundGround: An Interactive Musical Playground  
Michael St. Clair, Sasha Leitman

297  
The Fragmented Orchestra  
Daniel Jones, Tim Hodgson, Jane Grant, John Matthias, Nicholas Outram, Nick Ryan
Mobile Music (NIME 2009 Sessions)
4:30pm – 6pm, Saturday June 6th, 2009

303  Designing Smule's Ocarina: The iPhone's Magic Flute
     Ge Wang

308  Scratch-Off: A Gesture Based Mobile Music Game with Tactile Feedback
     Nicholas Gillian, Sile O'Modhrain, Georg Essl

312  ZooZBeat: A Gesture-Based Mobile Music Studio
     Gil Weinberg, Andrew Beck, Mark Godfrey

316  The Drummer: A Collaborative Musical Interface with Mobility
     Andrea Bianchi, Woon Seung Yeo
### Program 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Piece</th>
<th>Composer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>320</td>
<td>The Oklo Phenomenon</td>
<td>Robert Wechsler</td>
</tr>
<tr>
<td>321</td>
<td>Anigraphical Etude 9</td>
<td>David Lieberman</td>
</tr>
<tr>
<td>322</td>
<td>Cosmic Strings II</td>
<td>Min Eui Hong</td>
</tr>
<tr>
<td>323</td>
<td>Study No. 1 for PAM and MADI</td>
<td>Troy Rogers, Steven Kemper, Scott Barton</td>
</tr>
<tr>
<td>324</td>
<td>Fue Sho – Electrofusion</td>
<td>Garth Paine, Michael Atherton</td>
</tr>
<tr>
<td>325</td>
<td>Versum – Fluor</td>
<td>Tarik Barri</td>
</tr>
</tbody>
</table>

### Program 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Piece</th>
<th>Composer(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>326</td>
<td>Angry Sparrow</td>
<td>Chikashi Miyama</td>
</tr>
<tr>
<td>327</td>
<td>Biomuse Trio</td>
<td>Eric Lyon, Ben Knapp, Gascia Ouzounian</td>
</tr>
<tr>
<td>328</td>
<td>BodyJack</td>
<td>Suguru Goto</td>
</tr>
<tr>
<td>329</td>
<td>Code LiveCode Live, or Livecode Embodied</td>
<td>Marije A.J. Baalman</td>
</tr>
<tr>
<td>Page</td>
<td>Title</td>
<td>Performers</td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>330</td>
<td>MOLITVA — Composition for Voice, Live Electronics, Pointing-At Glove Device and 3-D Setup of Speakers</td>
<td>Giuseppe Torre, Robert Sazdov, Dorota Konczewska</td>
</tr>
<tr>
<td>331</td>
<td>Ben Neill and LEMUR</td>
<td>Ben Neill, Eric Singer</td>
</tr>
<tr>
<td></td>
<td><strong>Program 4</strong> (NIME 2009 Concert Schedule)</td>
<td></td>
</tr>
<tr>
<td>332</td>
<td>Performance: Modal Kombat Plays PONG</td>
<td>David Hindman, Evan Drummond</td>
</tr>
<tr>
<td>333</td>
<td>Afflux/Reflux</td>
<td>Colby Leider</td>
</tr>
<tr>
<td>334</td>
<td>PLOrk Beat Science 2.0</td>
<td>Ge Wang, Rebecca Fiebrink</td>
</tr>
<tr>
<td>335</td>
<td>Hands On — A New Work from SLABS Controller and Generative Algorithms</td>
<td>David Wessel</td>
</tr>
<tr>
<td>336</td>
<td>Bioluminescence</td>
<td>R. Luke DuBois, Lesley Flanigan</td>
</tr>
</tbody>
</table>
### NIME 2009 Installations

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>337</td>
<td>Elemental &amp; Cyrene Reefs</td>
<td>Ivica Bukvic, Eric Standley</td>
</tr>
<tr>
<td>338</td>
<td>Cellphonia: 4' 33&quot;</td>
<td>Scot Gresham-Lancaster, Steve Bull</td>
</tr>
<tr>
<td>339</td>
<td>Pendaphonics</td>
<td>Dan Overholt, Byron Lahey, Anne-Marie Skriver Hansen, Winslow Burleson, Camilla Nørgaard Jensen</td>
</tr>
<tr>
<td>340</td>
<td>Sound Lanterns</td>
<td>Scott Smallwood</td>
</tr>
<tr>
<td>341</td>
<td>AANN: Artificial Analog Neural Network</td>
<td>Phillip Stearns</td>
</tr>
</tbody>
</table>
# NIME 2009 Brief Author Index

**A**

<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aitenbichler, Erwin</td>
<td>7</td>
</tr>
<tr>
<td>Atherton, Michael</td>
<td>324</td>
</tr>
<tr>
<td>Ault, Chris</td>
<td>250</td>
</tr>
</tbody>
</table>

**B**

<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baalman, Marije A.J.</td>
<td>131, 329</td>
</tr>
<tr>
<td>Bahn, Curtis</td>
<td>41</td>
</tr>
<tr>
<td>Barri, Tarik</td>
<td>264, 325</td>
</tr>
<tr>
<td>Barton, Scott</td>
<td>323</td>
</tr>
<tr>
<td>Battaglia, Michael</td>
<td>147</td>
</tr>
<tr>
<td>Beck, Andrew</td>
<td>312</td>
</tr>
<tr>
<td>Beilharz, Kirsty</td>
<td>35</td>
</tr>
<tr>
<td>Bennett, Peter</td>
<td>213</td>
</tr>
<tr>
<td>Berdahl, Edgar</td>
<td>177, 183, 262</td>
</tr>
<tr>
<td>Berger, Jonathan</td>
<td>153</td>
</tr>
<tr>
<td>Bettens, Frédéric</td>
<td>141</td>
</tr>
<tr>
<td>Bianchi, Andrea</td>
<td>316</td>
</tr>
<tr>
<td>Bilbao, Stefan</td>
<td>106</td>
</tr>
<tr>
<td>Blosser, Brian</td>
<td>70</td>
</tr>
<tr>
<td>Böttcher, Niels</td>
<td>151</td>
</tr>
<tr>
<td>Bouillot, Nicolas</td>
<td>135</td>
</tr>
<tr>
<td>Braasch, Jonas</td>
<td>41</td>
</tr>
<tr>
<td>Bukvic, Ivica</td>
<td>337</td>
</tr>
<tr>
<td>Bull, Steve</td>
<td>338</td>
</tr>
<tr>
<td>Bullock, Jamie</td>
<td>266</td>
</tr>
<tr>
<td>Burleson, Winslow</td>
<td>339</td>
</tr>
</tbody>
</table>

**C**

<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campbell, Murray</td>
<td>106</td>
</tr>
<tr>
<td>Candy, Linda</td>
<td>207</td>
</tr>
<tr>
<td>Casciato, Carmine</td>
<td>1</td>
</tr>
<tr>
<td>Castro, Juan Fabrizio</td>
<td>268</td>
</tr>
<tr>
<td>Chu, Wen-Yang</td>
<td>141</td>
</tr>
<tr>
<td>Coccio, Lamberto</td>
<td>266</td>
</tr>
<tr>
<td>Collicutt, Mike</td>
<td>1</td>
</tr>
<tr>
<td>Collins, Nick</td>
<td>246</td>
</tr>
<tr>
<td>Cook, Perry R.</td>
<td>110, 218, 280</td>
</tr>
<tr>
<td>Cooperstock, Jeremy R.</td>
<td>135</td>
</tr>
<tr>
<td>Crawford, Langdon</td>
<td>149</td>
</tr>
<tr>
<td>Crevoisier, Alain</td>
<td>242</td>
</tr>
</tbody>
</table>

**D**

<table>
<thead>
<tr>
<th>Author</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>d’Alessandro, Nicolas</td>
<td>173</td>
</tr>
<tr>
<td>de Jong, Staas</td>
<td>163</td>
</tr>
<tr>
<td>Dimitrov, Smilen</td>
<td>151</td>
</tr>
<tr>
<td>Dolphin, Andy</td>
<td>56, 159</td>
</tr>
<tr>
<td>Draper, Reid</td>
<td>147</td>
</tr>
<tr>
<td>Driessen, Peter</td>
<td>236</td>
</tr>
<tr>
<td>Drummond, Evan</td>
<td>332</td>
</tr>
<tr>
<td>DuBois, R. Luke</td>
<td>336</td>
</tr>
<tr>
<td>DuBoit, Thierry</td>
<td>173</td>
</tr>
</tbody>
</table>

[Search]
## NIME 2009 Brief Author Index

### E
- Edmonds, Ernest ................................ 207
- Essl, Georg .................................. 33 270 308

### F
- Fastenow, William David ......................... 149
- Feehan, Noah .................................. 161
- Fels, Sidney ................................... 274
- Ferguson, Sam .................................. 35
- Fiebrink, Rebecca ............................... 280 334
- Fitzell, Gordon ................................ 78
- Fitzpatrick, Geraldine .................................. 246
- Flanigan, Lesley .................................. 336
- Freed, Adrian .................................. 86 116 121 230
- Fujinaga, Ichiro .................................. 90
- Fyans, A. Cavan .................................. 171

### G
- Gallin, Emmanuelle .................................. 199
- Gao, Mingfei ...................................... 58
- Gelineck, Steven .................................. 13
- Gerhard, David .................................. 155
- Gillian, Nicholas ................................. 60 308
- Godfrey, Mark .................................... 312
- Gong, Nan-Wei .................................... 74
- Goto, Suguru ...................................... 48 328
- Grant, Jane ....................................... 297
- Gresham-Lancaster, Scot ......................... 338
- Gurevich, Michael ............................... 171 213

Hadjakos, Aristotelis ........................................... 7175
Hansen, Anne-Marie Skriver ................................. 339
Hanson, Craig ...................................................... 58
Hashida, Mitsuyo .................................................. 45
Havryliv, Mark ...................................................... 187
Henriques, Tomás .................................................. 260
Hindman, David .................................................... 332
Hockman, Jason A. ................................................ 90
Hodgson, Tim ...................................................... 297
Höfer, Andreas ..................................................... 175
Hong, Min Eui ...................................................... 322
Hsu, William ........................................................ 25
Humphrey, Eric ..................................................... 31
Hurd, Timothy ...................................................... 187
Jensen, Camilla Nørgaard ..................................... 339
Jensenius, Alexander Refsum ................................. 94
Jessop, Elena ....................................................... 256
Johnston, Andrew .................................................. 207
Jones, Daniel ....................................................... 297
Jones, Randy ....................................................... 236
Kahrs, Mark ......................................................... 106
Kanda, Ryo .......................................................... 45
Kapur, Ajay .......................................................... 43
Kapuscinski, Jaroslaw ........................................... 222
Katayose, Haruhiro ............................................... 45
Keith, Sarah ........................................................ 54
Kellum, Greg ........................................................ 242
Kemper, Steven .................................................... 323
Kiefer, Chris ........................................................ 246
Kirk, Jonathon .................................................... 290
Knapp, Ben ........................................................ 327
Knapp, R. Benjamin ................................................ 60
Konczewska, Dorota ............................................. 330
Kouttron, Dane .................................................... 41
Kuhara, Yasuo ..................................................... 50
NIME 2009 Brief Author Index

L
Lähdeojja, Otso ........................................ 102
Lahey, Byron .............................................. 339
Lai, Chi-Hsia .............................................. 39
Laibowitz, Mat .......................................... 37 74
Laurenzo, Tomás ........................................ 268
Leeuw, Hans .............................................. 193
Leider, Colby ........................................... 31 147 333
Leitman, Sasha .......................................... 293
Lenters, Allison ......................................... 274
Lieberman, David ...................................... 321
Lubow, Jeff .............................................. 86
Lyon, Eric .................................................. 327

M
MacLean, Karon E. ..................................... 19
Mallikarjuna, Trishul .................................. 70
Malloch, Joseph .......................................... 131
Mann, Doug ............................................... 147
Mann, Yotam ............................................. 86
Matthias, John .......................................... 297
McDonald, Kyle .......................................... 41
McIntyre, Lawrence .................................. 110
McLean, Alex ............................................ 276
Min, Hye Ki ............................................... 82
Miyama, Chikashi ....................................... 326
Mühlhäuser, Max ........................................ 7 175
Müller, Alexander ....................................... 33

N
Nagashima, Yoichi .................................... 169
Naghdy, Fazel ........................................... 187
Nakra, Teresa Marrin .................................. 250
Neill, Ben .................................................. 331
Nicolls, Sarah .......................................... 203
Niemeyer, Günter ....................................... 177 183 262
Ninomiya, Takeshi ..................................... 64
Nishino, Hiroki ........................................... 62
Nymoen, Kristian ....................................... 94

O
Ogawa, Keisuke ......................................... 50
Oliveros, Pauline ....................................... 41
O’Modhrain, Sile ....................................... 60 308
Outram, Nicholas ...................................... 297
Ouzounian, Gascia ..................................... 327
Overholt, Dan ........................................... 339
NIME 2009 Brief Author Index

Paine, Garth .................................. 324
Paradiso, Joseph A. ......................... 37 74
Parson, Dale E. ............................. 157
Partridge, Grant ............................ 78
Pedrosa, Ricardo ......................... 19
Peng, Lijuan ................................. 155
Petersen, Klaus .............................. 64
Plazas, Daniel ............................... 147
Polfreman, Richard ....................... 226
Powell, Rob .................................. 48
Pritchard, Robert ......................... 274

Q

Raman, Aparna .............................. 70
Reben, Alexander .......................... 37
Reboursière, Loïc .......................... 141
Rodriguez, Ernesto ....................... 268
Rogers, Troy ................................. 323
Ryan, Nick .................................. 297

S
Salter, Christopher L. .................... 131
Sanchez, Javier ............................ 222
Sazdov, Robert .............................. 330
Schacher, Jan C. ............................ 286
Schiemer, Greg ............................. 187
Schiesser, Sébastien ....................... 165
Schlessinger, Daniel ...................... 98
Schloss, Andrew ............................ 236
Schmieder, Andrew ....................... 116 121
Serafin, Stefania ......................... 13
Singer, Eric ................................. 331
Sirguy, Marc ................................. 199
Siwiak, Diana .............................. 153
Skulina, David ............................. 106
Smallwood, Scott ......................... 110 340
Smaragdis, Paris ......................... 250
Smith III, Julius O. ....................... 98 177 183 262
Smoak, Harry C. ........................... 131
Solis, Jorge ................................. 64
Sosnick, Marc .............................. 25
Spowage, Neal ............................. 29
Standley, Eric .............................. 337
Stapleton, Paul ............................ 171 213
St. Clair, Michael ......................... 293
Stearns, Phillip ............................ 341
Steiner, Hans-Christoph ................. 125

### NIME 2009 Brief Author Index

<table>
<thead>
<tr>
<th>T</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Takanishi, Atsuo</td>
<td>Y</td>
</tr>
<tr>
<td>Takeuchi, Maasaki</td>
<td>Yang, Yao</td>
</tr>
<tr>
<td>Todoroff, Todor</td>
<td>Yeo, Woon Seung</td>
</tr>
<tr>
<td>Toenjes, John</td>
<td></td>
</tr>
<tr>
<td>Torre, Giuseppe</td>
<td></td>
</tr>
<tr>
<td>Trueman, Dan</td>
<td></td>
</tr>
<tr>
<td>Tzanetakis, George</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>U</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>W</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wanderley, Marcelo M.</td>
<td></td>
</tr>
<tr>
<td>Wang, Ge</td>
<td></td>
</tr>
<tr>
<td>Wechsler, Robert</td>
<td></td>
</tr>
<tr>
<td>Weinberg, Gil</td>
<td></td>
</tr>
<tr>
<td>Weisert, Lee</td>
<td></td>
</tr>
<tr>
<td>Wessel, David</td>
<td></td>
</tr>
<tr>
<td>Wiggins, Geraint</td>
<td></td>
</tr>
<tr>
<td>Wiley, Meason</td>
<td></td>
</tr>
</tbody>
</table>

[Search] ABCDEFGHIJKLMNOPQRSTUVWXYZ
Aittenbichler, Erwin
  7  Probabilistic Model of Pianists’ Arm Touch Movements

Atherton, Michael
  324  Fue Sho – Electrofusion

Ault, Chris
  250  The UBS Virtual Maestro: An Interactive Conducting System
Baalman, Marije A.J.
  131  Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork
  329  Code LiveCode Live, or Livecode Embodied

Bahn, Curtis
  41  The Vibrobyte: A Haptic Interface for Co-Located Performance

Barri, Tarik
  264  Versum: Audiovisual Composing in 3D
  325  Versum - Fluor

Barton, Scott
  323  Study No. 1 for PAM and MADI

Battaglia, Michael
  147  The elBo and footPad: Toward Personalized Hardware for Audio Manipulation

Beck, Andrew
  312  ZooZBeat: A Gesture-Based Mobile Music Studio

Beilharz, Kirsty
  35  An Interface for Live Interactive Sonification

Bennett, Peter
  213  Designing for Style in New Musical Interactions

B continues on next page…
Berdahl, Edgar
177  Using Haptics to Assist Performers in Making Gestures to a Musical Instrument
183  Using Haptic Devices to Interface Directly with Digital Waveguide-Based Musical Instruments
262  HSP: A Simple and Effective Open-Source Platform for Implementing Haptic Musical Instruments

Berger, Jonathan
153  Catch Your Breath — Musical Biofeedback for Breathing Regulation

Bettens, Frédéric
141  “Extension du Corps Sonore” — Dancing Viola

Bianchi, Andrea
316  The Drummer: A Collaborative Musical Interface with Mobility

Bilbao, Stefan
106  An Electroacoustically Controlled Vibrating Plate

Blosser, Brian
70  The Creation of a Multi-Human, Multi-Robot Interactive Jam Session

Böttcher, Niels
151  An Early Prototype of the Augmented PsychoPhone

Bouilhet, Nicolas
135  Challenges and Performance of High-Fidelity Audio Streaming for Interactive Performances

Braasch, Jonas
41  The Vibrobyte: A Haptic Interface for Co-Located Performance

B continues on next page…
Bukvic, Ivica
  337  Elemental & Cyrene Reefs
Bull, Steve
  338  Cellphonia: 4' 33"
Bullock, Jamie
  266  Towards a Humane Graphical User Interface for Live Electronic Music
Burleson, Winslow
  339  Pendaphonics
Campbell, Murray
106 An Electroacoustically Controlled Vibrating Plate

Candy, Linda
207 Designing for Conversational Interaction

Casciato, Carmine
1 From Real to Virtual: A Comparison of Input Devices for Percussion Tasks

Castro, Juan Fabrizio
268 YARMI: An Augmented Reality Musical Instrument

Chu, Wen-Yang
141 “Extension du Corps Sonore” — Dancing Viola

Coccioli, Lamberto
266 Towards a Humane Graphical User Interface for Live Electronic Music

Collicutt, Mike
1 From Real to Virtual: A Comparison of Input Devices for Percussion Tasks

Collins, Nick
246 Phalanger: Controlling Music Software with Hand Movement Using a Computer Vision and Machine Learning Approach

C continues on next page…
Cook, Perry R.
110  Don’t Forget the Loudspeaker — A History of Hemispherical Speakers at Princeton, Plus a DIY Guide
218  Re-Designing Principles for Computer Music Controllers: A Case Study of SqueezeVox Maggie
280  A Meta-Instrument for Interactive, On-the-Fly Machine Learning

Cooperstock, Jeremy R.
135  Challenges and Performance of High-Fidelity Audio Streaming for Interactive Performances

Crawford, Langdon
149  The Midi-AirGuitar: A Serious Musical Controller with a Funny Name

Crevoisier, Alain
242  A Flexible Mapping Editor for Multi-Touch Musical Instruments
d’Alessandro, Nicolas
173 Advanced Techniques for Vertical Tablet Playing — An Overview of Two Years of Practicing the HANDSKETCH 1.x

de Jong, Staas
163 Developing the Cyclotactor

Dimitrov, Smilen
151 An Early Prototype of the Augmented PsychoPhone

Dolphin, Andy
56 SpiralSet: A Sound Toy Utilizing Game Engine Technologies
159 MagNular: Symbolic Control of an External Sound Engine Using an Animated Interface

Draper, Reid
147 The elBo and footPad: Toward Personalized Hardware for Audio Manipulation

Driessen, Peter
236 A Force-Sensitive Surface for Intimate Control

Drummond, Evan
332 Performance: Modal Kombat Plays PONG

DuBois, R. Luke
336 Bioluminescence

Dutoit, Thierry
173 Advanced Techniques for Vertical Tablet Playing — An Overview of Two Years of Practicing the HANDSKETCH 1.x
<table>
<thead>
<tr>
<th>E</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmonds, Ernest</td>
<td>207  * Designing for Conversational Interaction</td>
</tr>
<tr>
<td>Essl, Georg</td>
<td>33    * Utilizing Tactile Feedback to Guide Movements Between Sounds</td>
</tr>
<tr>
<td></td>
<td>270    * SpeedDial: Rapid and On-the-Fly Mapping of Mobile Phone Instruments</td>
</tr>
<tr>
<td></td>
<td>308    * Scratch-Off: A Gesture Based Mobile Music Game with Tactile Feedback</td>
</tr>
</tbody>
</table>
Fastenow, William David
149  The Midi-AirGuitar: A Serious Musical Controller with a Funny Name

Feehan, Noah
161  AUDIO ORIENTEERING — Navigating an Invisible Terrain

Fels, Sidney
274  ForTouch: A Wearable Digital Ventriloquized Actor

Ferguson, Sam
35  An Interface for Live Interactive Sonification

Fiebrink, Rebecca
280  A Meta-Instrument for Interactive, On-the-Fly Machine Learning
334  PLOrk Beat Science 2.0

Fitzell, Gordon
78  Let Loose with WallBalls, a Collaborative Tabletop Instrument for Tomorrow

Fitzpatrick, Geraldine
246  Phalanger: Controlling Music Software with Hand Movement Using a Computer Vision and Machine Learning Approach

Flanigan, Lesley
336  Bioluminescence

F continues on next page...
Freed, Adrian
86  The Tactus: A Tangible, Rhythmic Grid Interface Using Found-Objects
116  Features and Future of Open Sound Control Version 1.1 for NIME
121  A Low-Level Embedded Service Architecture for Rapid DIY Design of Real-Time Musical Instruments
230  Novel and Forgotten Current-Steering Techniques for Resistive Multitouch, Duotouch, and Polytouch Position Sensing with Pressure

Fujinaga, Ichiro
90  Real-Time Phase Vocoder Manipulation by Runner's Pace

Fyans, A. Cavan
171  Where Did It All Go Wrong? A Model of Error from the Spectator's Perspective
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gallin, Emmanuelle</td>
<td>199</td>
<td>Sensor Technology and the Remaking of Instruments from the Past</td>
</tr>
<tr>
<td>Gao, Mingfei</td>
<td>58</td>
<td>LUMI: Live Performance Paradigms Utilizing Software Integrated Touch Screen and Pressure Sensitive Button Matrix</td>
</tr>
<tr>
<td>Gelineck, Steven</td>
<td>13</td>
<td>A Quantitative Evaluation of the Differences Between Knobs and Sliders</td>
</tr>
<tr>
<td>Gerhard, David</td>
<td>155</td>
<td>A Wii-Based Gestural Interface for Computer Conducting Systems</td>
</tr>
<tr>
<td>Gillian, Nicholas</td>
<td>60</td>
<td>The SARC EyesWeb Catalog: A Pattern Recognition Toolbox for Musician-Computer Interaction</td>
</tr>
<tr>
<td></td>
<td>308</td>
<td>Scratch-Off: A Gesture Based Mobile Music Game with Tactile Feedback</td>
</tr>
<tr>
<td>Godfrey, Mark</td>
<td>312</td>
<td>ZooZBeat: A Gesture-Based Mobile Music Studio</td>
</tr>
<tr>
<td>Gong, Nan-Wei</td>
<td>74</td>
<td>MusicGrip: A Writing Instrument for Music Control</td>
</tr>
<tr>
<td></td>
<td>328</td>
<td>BodyJack</td>
</tr>
</tbody>
</table>

G continues on next page...
Grant, Jane
  297  The Fragmented Orchestra

Gresham-Lancaster, Scot
  338  Cellphonia: 4' 33"

Gurevich, Michael
  171  Where Did It All Go Wrong? A Model of Error from the Spectator's Perspective
  213  Designing for Style in New Musical Interactions
Hadjakos, Aristotelis
7 Probabilistic Model of Pianists’ Arm Touch Movements
175 Gyroscope-Based Conducting Gesture Recognition

Hansen, Anne-Marie Skriver
339 Pendaphonics

Hanson, Craig
58 LUMI: Live Performance Paradigms Utilizing Software Integrated Touch Screen and Pressure Sensitive Button Matrix

Hashida, Mitsuyo
45 Mims: Interactive Multimedia Live Performance System

Havryliv, Mark
187 Haptic Carillon — Analysis & Design of the Carillon Mechanism

Henriques, Tomás
260 Double Slide Controller

Hindman, David
332 Performance: Modal Kombat Plays PONG

Hockman, Jason A.
90 Real-Time Phase Vocoder Manipulation by Runner’s Pace

Hodgson, Tim
297 The Fragmented Orchestra

H continues on next page…
Höfer, Andreas
175  Gyroscope-Based Conducting Gesture Recognition

Hong, Min Eui
322  Cosmic Strings II

Hsu, William
25   Evaluating Interactive Music Systems: An HCI Approach

Humphrey, Eric
31   The Navi Activity Monitor: Toward Using Kinematic Data to Humanize Computer Music

Hurd, Timothy
187  Haptic Carillon — Analysis & Design of the Carillon Mechanism
Irani, Pourang
  78  Let Loose with WallBalls, a Collaborative Tabletop Instrument for Tomorrow

Ivanov, Yuri
  250  The *UBS Virtual Maestro*: An Interactive Conducting System
J

Jensen, Camilla Nørgaard
339  Pendaphonics

Jensenius, Alexander Refsum
  94  A Discussion of Multidimensional Mapping in Nymophone2

Jessop, Elena
  256  The Vocal Augmentation and Manipulation Prosthesis (VAMP): A Conducting-Based Gestural Controller for Vocal Performance

Johnston, Andrew
  207  Designing for Conversational Interaction

Jones, Daniel
  297  The Fragmented Orchestra

Jones, Randy
  236  A Force-Sensitive Surface for Intimate Control
Kahrs, Mark
106  An Electroacoustically Controlled Vibrating Plate

Kanda, Ryo
45  Mims: Interactive Multimedia Live Performance System

Kapur, Ajay
43  Multi-Laser Gestural Interface — Solutions for Cost-Effective and Open Source Controllers

Kapuscinski, Jaroslaw
222  Interfacing Graphic and Musical Elements in Counterlines

Katayose, Haruhiro
45  Mims: Interactive Multimedia Live Performance System

Keith, Sarah
54  Controlling Live Generative Electronic Music with Deviate

Kellum, Greg
242  A Flexible Mapping Editor for Multi-Touch Musical Instruments

Kemper, Steven
323  Study No. 1 for PAM and MADI

Kiefer, Chris
246  Phalanger: Controlling Music Software with Hand Movement Using a Computer Vision and Machine Learning Approach

K continues on next page…
Kirk, Jonathon
290  The Argus Project: Underwater Soundscape Composition with Laser-Controlled Modulation

Knapp, Ben
327  Biomuse Trio

Knapp, R. Benjamin
60   The SARC EyesWeb Catalog: A Pattern Recognition Toolbox for Musician-Computer Interaction

Konczewska, Dorota
330  MOLITVA — Composition for Voice, Live Electronics, Pointing-At Glove Device and 3-D Setup of Speakers

Kouttron, Dane
41   The Vibrobyte: A Haptic Interface for Co-Located Performance

Kuhara, Yasuo
50   Life Game Orchestra as an Interactive Music Composition System Translating Cellular Patterns of Automata into Musical Scales
L

Lähdeoja, Otso
102 Augmenting Chordophones with Hybrid Percussive Sound Possibilities

Lahey, Byron
339 Pendaphonics

Lai, Chi-Hsia
39 Hands on Stage: A Sound and Image Performance Interface

Laibowitz, Mat
37 Responsive Music Interfaces for Performance
74 MusicGrip: A Writing Instrument for Music Control

Laurenzo, Tomás
268 YARMI: An Augmented Reality Musical Instrument

Leeuw, Hans
193 The Electrumpet: A Hybrid Electro-Acoustic Instrument

Leider, Colby
31 The Navi Activity Monitor: Toward Using Kinematic Data to Humanize Computer Music
147 The elBo and footPad: Toward Personalized Hardware for Audio Manipulation
333 Aflux/Reflux

Leitman, Sasha
293 PlaySoundGround: An Interactive Musical Playground

L continues on next page...
Lenters, Allison
   274  ForTouch: A Wearable Digital Ventriloquized Actor

Lieberman, David
   321  Anigraphical Etude 9

Lubow, Jeff
   86   The Tactus: A Tangible, Rhythmic Grid Interface Using Found-Objects

Lyon, Eric
   327  Biomuse Trio
MacLean, Karon E.
19 Evaluation of 3D Haptic Target Rendering to Support Timing in Music Tasks

Mallikarjuna, Trishul
70 The Creation of a Multi-Human, Multi-Robot Interactive Jam Session

Malloch, Joseph
131 Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork

Mann, Doug
147 The eBox and footPad: Toward Personalized Hardware for Audio Manipulation

Mann, Yotam
86 The Tactus: A Tangible, Rhythmic Grid Interface Using Found-Objects

Matthias, John
297 The Fragmented Orchestra

McDonald, Kyle
41 The Vibrobyte: A Haptic Interface for Co-Located Performance

McIntyre, Lawrence
110 Don’t Forget the Loudspeaker — A History of Hemispherical Speakers at Princeton, Plus a DIY Guide

McLean, Alex
276 Words, Movement and Timbre

Min, Hye Ki
82 SORISU: Sound with Numbers

M continues on next page...
<table>
<thead>
<tr>
<th>Authors</th>
<th>Pages</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miyama, Chikashi</td>
<td>326</td>
<td>Angry Sparrow</td>
</tr>
<tr>
<td>Mühlhäuser, Max</td>
<td>7</td>
<td>Probabilistic Model of Pianists’ Arm Touch Movements</td>
</tr>
<tr>
<td></td>
<td>175</td>
<td>Gyroscope-Based Conducting Gesture Recognition</td>
</tr>
<tr>
<td>Müller, Alexander</td>
<td>33</td>
<td>Utilizing Tactile Feedback to Guide Movements Between Sounds</td>
</tr>
</tbody>
</table>
Nagashima, Yoichi

169  Parallel Processing System Design with “Propeller” Processor

Naghdy, Fazel

187  Haptic Carillon — Analysis & Design of the Carillon Mechanism

Nakra, Teresa Marrin

250  The *UBS Virtual Maestro*: An Interactive Conducting System

Neill, Ben

331  Ben Neill and LEMUR

Nicolls, Sarah

203  Twenty-First Century Piano

Niemeyer, Günter

177  Using Haptics to Assist Performers in Making Gestures to a Musical Instrument

183  Using Haptic Devices to Interface Directly with Digital Waveguide-Based Musical Instruments

262  HSP: A Simple and Effective Open-Source Platform for Implementing Haptic Musical Instruments

Ninomiya, Takeshi

64  Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction

Nishino, Hiroki

62  A 2D Fiducial Tracking Method Based on Topological Region Adjacency and Angle Information

* N continues on next page…
Nymoen, Kristian

94  A Discussion of Multidimensional Mapping in Nymphone2
Ogawa, Keisuke
50  Life Game Orchestra as an Interactive Music Composition System Translating Cellular Patterns of Automata into Musical Scales

Oliveros, Pauline
41  The Vibrobyte: A Haptic Interface for Co-Located Performance

O'Modhrain, Sile
60  The SARC EyesWeb Catalog: A Pattern Recognition Toolbox for Musician-Computer Interaction
308  Scratch-Off: A Gesture Based Mobile Music Game with Tactile Feedback

Outram, Nicholas
297  The Fragmented Orchestra

Ouzounian, Gascia
327  Biomuse Trio

Overholt, Dan
339  Pendaphonics
Paine, Garth
324  Fue Sho – Electrofusion

Paradiso, Joseph A.
37  Responsive Music Interfaces for Performance
74  MusicGrip: A Writing Instrument for Music Control

Parson, Dale E.
157  Chess-Based Composition and Improvisation for Non-Musicians

Partridge, Grant
78  Let Loose with WallBalls, a Collaborative Tabletop Instrument for Tomorrow

Pedrosa, Ricardo
19  Evaluation of 3D Haptic Target Rendering to Support Timing in Music Tasks

Peng, Lijuan
155  A Wii-Based Gestural Interface for Computer Conducting Systems

Petersen, Klaus
64  Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction

Plazas, Daniel
147  The eBo and footPad: Toward Personalized Hardware for Audio Manipulation

Polfreman, Richard
226  FrameWorks 3D: Composition in the Third Dimension

P continues on next page...
Powell, Rob

Pritchard, Robert
274  ForTouch: A Wearable Digital Ventriloquized Actor
Raman, Aparna

70  The Creation of a Multi-Human, Multi-Robot Interactive Jam Session

Reben, Alexander

37  Responsive Music Interfaces for Performance

Reboursière, Loïc

141  “Extension du Corps Sonore” — Dancing Viola

Rodríguez, Ernesto

268  YARMI: An Augmented Reality Musical Instrument

Rogers, Troy

323  Study No. 1 for PAM and MADI

Ryan, Nick

297  The Fragmented Orchestra
Sa

Salter, Christopher L.
131  Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork

Sanchez, Javier
222  Interfacing Graphic and Musical Elements in Counterlines

Sazdov, Robert
330  MOLITVA — Composition for Voice, Live Electronics, Pointing-At Glove Device and 3-D Setup of Speakers

Schacher, Jan C.
286  Action and Perception in Interactive Sound Installations: An Ecological Approach

Schiemer, Greg
187  Haptic Carillon — Analysis & Design of the Carillon Mechanism

Schiesser, Sébastien
165  midOSC: A Gumstix-Based MIDI-to-OSC Converter

Schlessinger, Daniel
98   The Kalichord: A Physically Modeled Electro-Acoustic Plucked String Instrument

Schloss, Andrew
236  A Force-Sensitive Surface for Intimate Control

Schmeder, Andrew
116  Features and Future of Open Sound Control Version 1.1 for NIME
121  A Low-Level Embedded Service Architecture for Rapid DIY Design of Real-Time Musical Instruments

S continues on next page...
Serafin, Stefania
  13  A Quantitative Evaluation of the Differences Between Knobs and Sliders

Singer, Eric
  331  Ben Neill and LEMUR

Sirguy, Marc
  199  Sensor Technology and the Remaking of Instruments from the Past

Siwiak, Diana
  153  Catch Your Breath — Musical Biofeedback for Breathing Regulation

Skulina, David
  106  An Electroacoustically Controlled Vibrating Plate

Smallwood, Scott
  110  Don't Forget the Loudspeaker — A History of Hemispherical Speakers at Princeton, Plus a DIY Guide
  340  Sound Lanterns

Smaragdis, Paris
  250  The UBS Virtual Maestro: An Interactive Conducting System

S continues on next page...
Smith III, Julius O.
98 The Kalichord: A Physically Modeled Electro-Acoustic Plucked String Instrument
177 Using Haptics to Assist Performers in Making Gestures to a Musical Instrument
183 Using Haptic Devices to Interface Directly with Digital Waveguide-Based Musical Instruments
262 HSP: A Simple and Effective Open-Source Platform for Implementing Haptic Musical Instruments

Smoak, Harry C.
131 Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork

Solis, Jorge
64 Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction

Sosnick, Marc
25 Evaluating Interactive Music Systems: An HCI Approach

Spowage, Neal
29 The Ghetto Bastard: A Portable Noise Instrument

Standley, Eric
337 Elemental & Cyrene Reefs

Stapleton, Paul
171 Where Did It All Go Wrong? A Model of Error from the Spectator's Perspective
213 Designing for Style in New Musical Interactions

S continues on next page…
St. Clair, Michael
293  PlaySoundGround: An Interactive Musical Playground

Stearns, Phillip
341  AANN: Artificial Analog Neural Network

Steiner, Hans-Christoph
125  Firmata: Towards Making Microcontrollers Act Like Extensions of the Computer
Takanishi, Atsuo
64  Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction

Takeuchi, Maasaki
64  Anthropomorphic Musical Performance Robots at Waseda University: Increasing Understanding of the Nature of Human Musical Interaction

Todoroff, Todor
141  “Extension du Corps Sonore” — Dancing Viola

Toenjes, John
52  Natural Materials on Stage: Custom Controllers for Aesthetic Effect

Torre, Giuseppe
330  MOLITVA — Composition for Voice, Live Electronics, Pointing-At Glove Device and 3-D Setup of Speakers

Trueman, Dan
110  Don’t Forget the Loudspeaker — A History of Hemispherical Speakers at Princeton, Plus a DIY Guide
280  A Meta-Instrument for Interactive, On-the-Fly Machine Learning

Tzanetakis, George
236  A Force-Sensitive Surface for Intimate Control
V

Wanderley, Marcelo M.

1  From Real to Virtual: A Comparison of Input Devices for Percussion Tasks
90 Real-Time Phase Vocoder Manipulation by Runner’s Pace
131 Sharing Data in Collaborative, Interactive Performances: The SenseWorld DataNetwork

Wang, Ge

303 Designing Smule’s Ocarina: The iPhone’s Magic Flute
334 PLOrk Beat Science 2.0

Wechsler, Robert

320 The Oklo Phenomenon

Weinberg, Gil

70 The Creation of a Multi-Human, Multi-Robot Interactive Jam Session
312 ZooZBeat: A Gesture-Based Mobile Music Studio

Weisert, Lee

290 The Argus Project: Underwater Soundscape Composition with Laser-Controlled Modulation

Wessel, David

335 Hands On — A New Work from SLABS Controller and Generative Algorithms

Wiggins, Geraint

276 Words, Movement and Timbre

Wiley, Meason

43 Multi-Laser Gestural Interface — Solutions for Cost-Effective and Open Source Controllers
Yang, Yao
  153  
  Catch Your Breath — Musical Biofeedback for Breathing Regulation

Yeo, Woon Seung
  316  
  The Drummer: A Collaborative Musical Interface with Mobility
You have reached the end of this document.

Please use the bookmarks on the left hand side of this window to continue navigating this publication.