



June 3, 2018

Dear NIME Attendees:

It gives us great pleasure to welcome you to the 2018 New Interfaces for Musical Expression (NIME) Conference. With over 240 participants from over 25 countries, this conference truly embodies an unparalleled global collaboration around our theme of "Mirrored Resonances" featuring the latest innovative music, digital art, emerging technology, and NIME research. This conference also represents an unprecedented partnership between the University of Virginia and Virginia Tech, two flagship higher education institutions in Virginia.

Over three years in the making, this year we have an exceptional conference featuring close to 200 accepted contributions out of more than 460 submissions across five categories. We have made every effort to build on the preexisting rigor of the NIME conference review process. As a result, all of the applicable categories constituting the final program were selected through a double-blind, critically-peer-reviewed process with extensive feedback conducted by diverse committees made up of expert reviewers from around the world. We have also worked hard towards further strengthening the connections between academia, arts scenes, and industry, with particular focus on diversity and inclusion. Thanks to our sponsor network, we have also expanded the number of awards that further amplify the aforesaid goals. This week we will present four unique keynote creatives showcasing four different approaches to exploring the NIME domain, share break-through music, research and technology across eleven concerts, ten paper sessions, seven installations, seventy four demos and posters, a dozen workshops, and a panel designed specifically to engage the community in a critical discourse about the future, democratization, and globalization of NIMES. In addition, throughout the conference the industry partners will be sharing tools and practical experiences in workshops and booths. The topics of paper sessions range broadly and cover critical topic areas, including Networked Communities, Sonocybernetics, Immersive Environments, and Democratizing NIMES, all of which were selected to be of global interest, highly stimulating, and thought-provoking.

As the conference co-chairs, we would like to thank all the co-organizers and the sub-committees whose hard work was instrumental in enacting a compelling and engaging program. A number of volunteers and the ICAT and Moss Arts Center staff have worked tirelessly to produce this conference on the campus of Virginia Tech. Special gratitude goes out to staff of Virginia Tech Continuing and Professional Education, and to the sponsors and industry partners, as well as our extensive list of stakeholders. Likewise, we would like to thank our keynote guests and dignitaries who will inspire us with their presence, creativity, and vision.

This conference would not have been possible without the careful work of the sub-committee co-chairs, and the selfless contributions from many reviewers from around the world who were asked to respond with detailed feedback on each submission. Most importantly, we thank you, the presenting researchers, composers, performers, artists, and technologists whose contributions have culminated in an unsurpassed wealth of information we now proudly share with the community and the world.

We welcome you to Virginia and where the state slogan is "Virginia is for Lovers." We sincerely hope you will love and enjoy what the conference has to offer as much as we have enjoyed working on it. We look forward to meeting you personally and warmly welcoming each and every one of you. If there is anything we can do to make your visit to the scenic southwest Virginia and the iconic Virginia Tech campus more comfortable and engaging, please do not hesitate to let us know.

Sincerely,

Ico and Matthew



# CONFERENCE PLANNING COMMITTEE

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*Associate Professor of Creative Technologies in Music, Virginia Tech*

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*Professor of Composition and Computer Technologies, University of Virginia*

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*Jeneen Preston, Project Coordinator*

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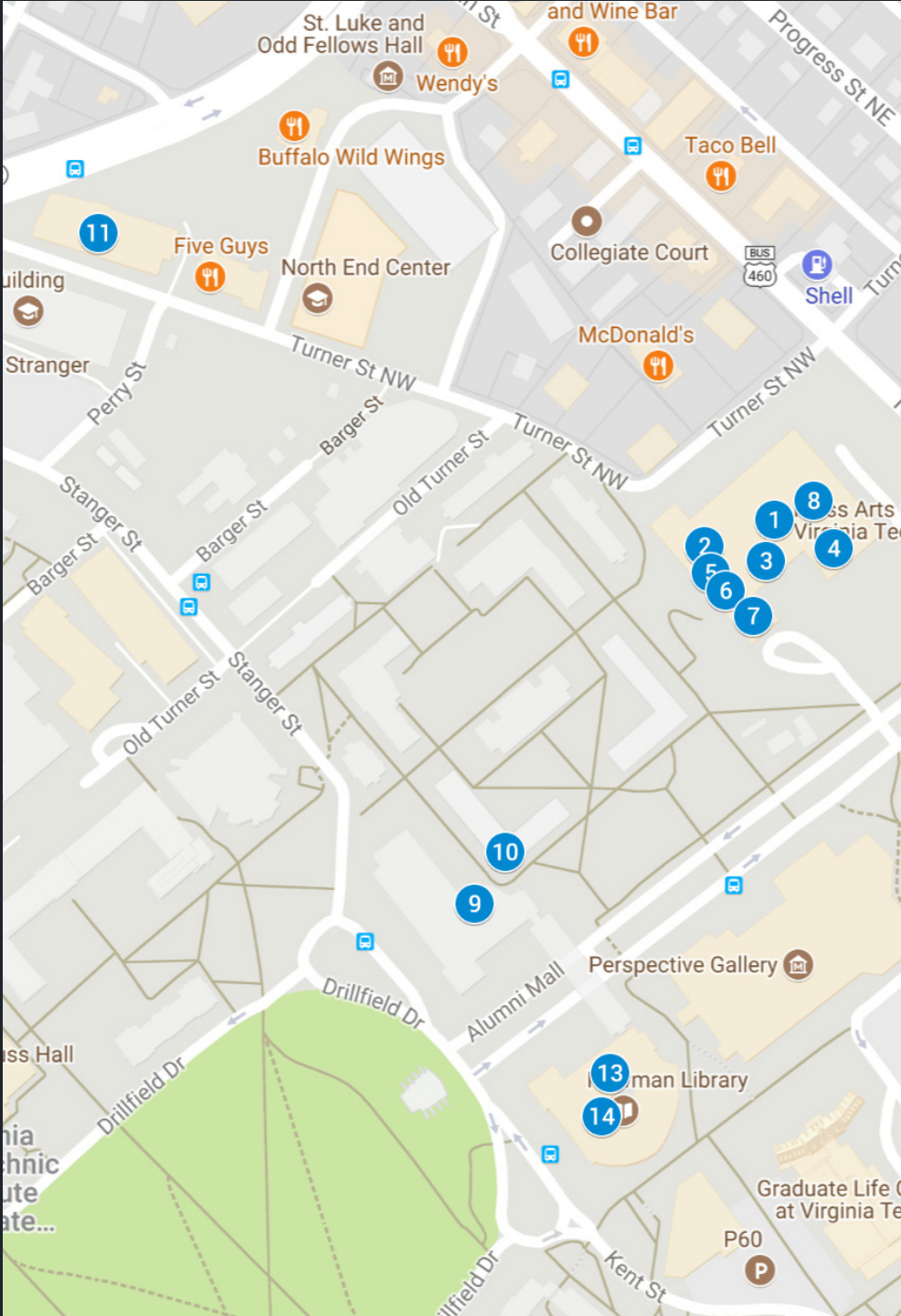
*Disha Sardana, Human-Centered Design, Virginia Tech*

### L2Ork Members and Conference Volunteers

*Tyler Epting, Brandon Hale, Alex Little, DJ Malinowski,*

*Jocelyn Roman, Aline R. S. S. de Souza, Wynn Yang*

*We would also like to thank countless volunteers, as well as Moss Arts Center staff who have helped coordinate critical aspects of the conference. Thank you! We could not have done it without you.*



## ON THE MAP

All conference venues are conveniently located within a walking distance of each other and most hotels.

### MOSS ARTS CENTER (1)

190 Alumni Mall, Blacksburg, VA 24060

### LEARNING STUDIOS A & B (2)

### GRAND LOBBY (3)

### ORCH., MEZZANINE & BALCONY LOBBIES (4)

### PERFORM STUDIO (5)

### EXPERIENCE STUDIO B (6)

### THE CUBE (7)

### ANNE AND ELLEN FIFE THEATRE (8)

### TORGENSEN HALL: ROOM 2150 (9)

620 Drillfield Dr., Blacksburg, VA 24061

### NEW CADET HALL (10)

310 Alumni Mall, Blacksburg, VA 24061

### CENTER OF DANCE (11)

460 Turner St NW #101, Blacksburg, VA 24060

### ARMORY GALLERY (12)

203 Draper Rd NW, Blacksburg, VA 24061

### NEWMAN LIBRARY

560 Drillfield Dr, Blacksburg, VA 24061

### DISIS (13)

### MULTIPURPOSE ROOM (14)

Interactive directions including hotel locations can be found at:

<http://nime2018.icat.vt.edu/travel/>



# PARTNERS

## SILVER SPONSORS



## STUDENT SPONSORS



## CONTRIBUTORS



## AFFILIATES

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Graduate School  
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Technology-enhanced Learning and Online Strategies  
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McIntire Department of Music  
Composition and Computer Technologies  
College of Arts and Sciences Collective Response: Moving Forward  
OpenGrounds Studios  
Vice Provost for the Arts

# KEYNOTE PRESENTERS

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## ONYX ASHANTI

*Composer | Performer | Media Artist*

Since being introduced on the world stage by way of a fortuitous TED talk he did in 2011 entitled "This is Beatjazz," Mississippi native, Onyx Ashanti, has been evolving at a pace that surprises even him. Musician, Programmer, 3d print-designer, writer, performer, inventor...a self described child of the internet, and disciple of the open source philosophy, Onyx has spent the last few years creating a multidimensional expression concept called beatjazz.



## R. BENJAMIN KNAPP

*Scholar | Researcher | Performer*

R. Benjamin Knapp is the Founding Director for the Institute for Creativity, Arts, and Technology (ICAT) and Professor of Computer Science at Virginia Tech. ICAT seeks to promote research and education at the nexus of art, design, engineering, and science. For more than 25 years, Knapp has been working to create meaningful links between human-computer interaction, universal design, and various forms of creativity. His research on human-computer interaction has focused on the development and design of user-interfaces and software that allow both composers and performers to augment the physical control of a musical instrument with direct sensory interaction.





## IKUE MORI

*Composer | Performer | Media Artist*

Ikue Mori moved from Tokyo to New York in 1977. She started playing drums and soon formed the seminal NO WAVE band DNA with Arto Lindsay. Since the 1990s she has collaborated with numerous musicians and artists throughout the US, Europe, and Asia, while continuing to produce and record her own music. Ikue won the Distinctive Award for Prix Ars Electronica Digital Music category in 1999 and shortly after started using laptop computer to expand her vocabulary, not only playing sounds but creating and controlling visual work as well.



## PAMELA Z

*Composer | Performer | Media Artist*

Pamela Z is a composer/performer and media artist who works primarily with voice, live electronic processing, sampled sound, and video. A pioneer of live digital looping techniques, she processes her voice in real time to create dense, complex sonic layers. Her solo works combine experimental extended vocal techniques, operatic bel canto, found objects, text, and sampled concrete sounds. She uses Max/MSP and Isadora software along with custom MIDI controllers that allow her to manipulate sound and image with physical gestures. Her performances range in scale from small concerts in galleries to large-scale multi-media works in theaters and concert halls.

# PAPER SESSIONS

TORGESSEN HALL: ROOM 2150

## MONDAY, JUNE 4<sup>TH</sup>

### PAPER SESSION 1 (9:00-10:30AM): COLLABORATION & AUDIENCE PARTICIPATION

Working Methods and Instrument Design for Cross-Adaptive Sessions

*Oeyvind Brandtsegg, Trond Engum,  
Bernt Isak Wærstad*

\*12\*: Mobile Phone-Based Audience Participation in a Chamber Music Performance

*Eran Egozy, Eun Young Lee*

Animated Notation in Multiple Parts for Crowd of Non-Professional Performers

*Anders Lind*

Interacting with Musebots

*Andrew R. Brown, Matthew Horrigan, Arne Eigenfeldt,  
Toby Gifford, Daniel Field, Jon McCormack*

Towards New Modes of Collective Musical Expression through Audio Augmented Reality

*Chris Kiefer, Cecile Chevalier*

### PAPER SESSION 2 (1:30-3:00PM): SOFTWARE & ALGORITHMS

A Framework for Modular VST-based NIMes Using EDA and Dependency Injection

*Patrick Palsbröcker, Christine Steinmeier, Dominic Becking*

Chunity: Integrated Audiovisual Programming in Unity

*Jack Atherton, Ge Wang*

Exploring Continuous Time Recurrent Neural Networks through Novelty Search

*Steffan Carlos Ianigro, Oliver Bown*

All the Noises: Hijacking Listening Machines for Performative Research

*John Bowers, Owen Green*

A polyphonic Pitch Tracking Embedded System for Rapid Instrument Augmentation

*Rodrigo Schramm, Federico Visi, André Brasil,  
Marcelo O. Johann*

### PAPER SESSION 3 (3:30-5:00PM): MOVEMENT & GESTURE

Contextualising Idiomatic Gestures in Musical Interactions with NIMes

*Koray Tahiroglu, Michael Gurevich, R. Benjamin Knapp*

GestureRNN: A neural gesture system for the Roli Lightpad Block

*Lamtharn Hantrakul*

Myo Mapper: a Myo armband to OSC mapper

*Balandino Di Donato, Jamie Bullock, Atsu Tanaka*

Real-Time Motion Capture Analysis and Music Interaction with the Modosc Descriptor Library

*Federico Visi, Luke Dahl*

## TUESDAY, JUNE 5<sup>TH</sup>

### PAPER SESSION 4 (9:00-10:30AM): MULTI-TOUCH & HAPTICS

The Phone with the Flow: Combining Touch + Optical Flow in Mobile Instruments

*Cagan Arslan, Florent Berthaut, Jean Martinet,  
Ioan Marius Bilasco, Laurent Grisoni*

Multi-Touch Enhanced Visual Audio-Morphing

*Lars Engeln, Dietrich Kammer, Leon Brandt,  
Rainer Groh*

GrainTrain: A Hand-drawn Multi-touch Interface for Granular Synthesis

*Anil Çamcı*

ShIFT: A Semi-haptic Interface for Flute Tutoring

*Gus Xia, Roger B. Dannenberg*

### PAPER SESSION 5 (11:00AM-12:30PM): THEORY & CRITIQUE

NIME Identity from the Performer's Perspective

*Fabio Morreale, Andrew P. McPherson, Marcelo Wanderley*

Who Are the Women Authors in NIME? – Improving Gender Balance in NIME Research

*Anna Xambó*

Women Who Build Things: Gestural Controllers, Augmented Instruments, and Musical Mechatronics

*Sarah Reid, Sara Sithi-Amnuai, Ajay Kapur*

Democratising DMIs: the Relationship of Expertise and Control Intimacy

*Robert H Jack, Jacob Harrison, Fabio Morreale,  
Andrew P. McPherson*

The Problem of DMI Adoption and Longevity: Envisioning a NIME Performance Pedagogy

*Annan Marquez-Borbon, Juan Pablo Martinez Avila*

## PAPER SESSION 6 (2:00-3:30PM): MAKING & NEW INSTRUMENTS

**Triplexer: An Expression Pedal with New Degrees of Freedom**  
*Steven Leib, Anil Çamcı*

**The halldorophone: The ongoing innovation of a cello-like drone instrument**  
*Halldór Úlfarsson*

**L2OrkMote: Reimagining a Low-Cost Wearable Controller for a Live Gesture-Centric Music Performance**  
*Kyriakos Tsoukalas, Joseph Kubalak, Ivica Ico Bukvic*

**Crafting Digital Musical Instruments: An Exploratory Workshop Study**  
*Jack Armitage, Andrew P. McPherson*

**Individual Fabrication of Cymbals using Incremental Robotic Sheet Forming**  
*Ammar Kalo, Georg Essl*

## PAPER SESSION 7 (4:00-5:30PM): SKILL, LEARNING & GUITARS

**Haptic-Listening and the Classical Guitar**  
*John McDowell*

**When is a Guitar not a Guitar? Cultural Form, Input Modality and Expertise**  
*Jacob Harrison, Robert H. Jack, Fabio Morreale, Andrew P. McPherson*

**A Longitudinal Field Trial with a Hemiplegic Guitarist Using The Actuated Guitar**  
*Jeppe Larsen, Hendrik Knoche, Dan Overholt*

**Co-Tuning Virtual-Acoustic Performance Ecosystems: observations on the development of skill and style in the study of musician-instrument relationships**  
*Paul Stapleton, Maarten van Walstijn, Sandor Mehes*

## WEDNESDAY, JUNE 6<sup>TH</sup>

### PAPER SESSION 8 (9:00-10:30AM): NEW INSTRUMENTS & INTERACTIONS

**Telemetron: A Musical Instrument for Performance in Zero Gravity**  
*Sands A. Fish II, Nicole L'Huillier*

**robotcowboy: 10 Years of Wearable Computer Rock**  
*Dan Wilcox*

### PAPER SESSION 8 (9:00-10:30AM): NEW INSTRUMENTS & INTERACTIONS (CONTINUED)

**Bela-Based Augmented Acoustic Guitars for Sonic Microinteraction**  
*Victor Evaristo Gonzalez Sanchez, Charles Patrick Martin, Agata Zelechowska, Kari Anne Vadstenskvik Bjerkestrand, Victoria Johnson, Alexander Refsum Jensenius*

**Mirroring the past, from typewriting to interactive art: an approach to the re-design of a vintage technology**  
*Giacomo Lepri, Andrew P. McPherson*

**Alto.Glove: New Techniques for Augmented Violin**  
*Seth Dominicus Thorn*

### PAPER SESSION 9 (1:30-2:30PM): SOUND GENERATION

**Widening the Razor-Thin Edge of Chaos Into a Musical Highway: Connecting Circle Maps to Digital Waveguides**  
*Edgar Berdahl, Eric Sheffield, Andrew Pfalz, Anthony T. Marasco*

**Neuron-modeled Audio Synthesis: Nonlinear Sound and Control**  
*Jeff Snyder, Aatish Bhatia, Michael R. Mulshine*

**Fuzzy Logic Control Toolkit 2.0: composing and synthesis by fuzzyfication**  
*Rodrigo F. Cádiz, Marie Gonzalez-Inostroza*

### PAPER SESSION 10 (2:30-3:30PM): ROBOTICS & MECHATRONICS

**Guitar Machine: Robotic Augmentation for Hybrid Human-Machine Guitar Play**  
*Sang-won Leigh, Pattie Maes*

**Robotic Percussive Aerophone**  
*Scott Barton, Karl Sundberg, Andrew Walter, Tanuj Sane, Linda Sara Baker*

**Mechatronic Performance in Computer Music Compositions**  
*Nathan Daniel Villicaña-Shaw, Spencer Salazar, Ajay Kapur*

# POSTER SESSIONS

MOSS ARTS CENTER: ORCHESTRA LOBBY, LEARNING STUDIOS A & B

## MONDAY, JUNE 4<sup>TH</sup> 11:30AM-1:30PM

**Aphysical Unmodeling Instrument: Sound Installation that Re-Physicalizes a Meta-Wind-Instrument Physical Model, Whirlwind**  
*Tomoya Matsuura, Kazuhiro Jo*

**An approach to stochastic spatialization — A case of Hot Pocket**  
*Ulf A. S. Holbrook*

**AM MODE: Using AM and FM Synthesis for Acoustic Drum Set Augmentation**  
*Cory Champion, Mo H. Zareei*

**Kinesynth: Patching, Modulating, and Mixing a Hybrid Kinesthetic Synthesizer.**  
*Don Derek Haddad, Joe Paradiso*

**CABOTO: A Graphic-Based Interactive System for Composing and Performing Electronic Music**  
*Riccardo Marogna*

**The XT Synth: A New Controller for String Players**  
*Gustavo Oliveira da Silveira*

**Risky business: Disfluency as a design strategy**  
*S. M. Astrid Bin, Nick Bryan-Kinns, Andrew P. McPherson*

**The Theremin Textural Expander**  
*Rachel Gibson*

**Demo of interactions Between a Performer Playing a Smart Mandolin and Audience Members Using Musical Haptic Wearables**  
*Luca Turchet, Mathieu Barthet*

**Developing a Performance Practice for Mobile Music Technology**  
*Spencer Salazar, Andrew Piepenbrink, Sarah Reid*

**Siren: Interface for Pattern Languages**  
*Mert Toka, Can Ince, Mehmet Aydin Baytas*

**MOM: an Extensible Platform for Rapid Prototyping and Design of Electroacoustic Instruments**  
*Ali Momeni, Daniel McNamara, Jesse Stiles*

**Harmonic Wand: An Instrument for Microtonal Control and Gestural Excitation**  
*Ben Luca Robertson, Luke Dahl*

**Sansa: A Modified Sansula for Extended Compositional Techniques Using Machine Learning**  
*McLean J Macionis, Ajay Kapur*

**Mechatronic Expression: Reconsidering Expressivity in Music for Robotic Instruments**  
*Steven Kemper, Scott Barton*

**Interactive Tango Milonga: Designing DMIs for the Social Dance Context**  
*Courtney Brown*

**Vocal Musical Expression with a Tactile Resonating Device and its Psychophysiological Effects**  
*Rebecca Kleinberger*

**Performance Systems for Live Coders and Non Coders**  
*Avneesh Sarwate, Ryan Taylor Rose, Jason Freeman, Jack Armitage*

## TUESDAY, JUNE 5<sup>TH</sup> 12:30-2:00PM

**Composing an Ensemble Standstill Work for Myo and Bela**  
*Charles Patrick Martin, Alexander Refsum Jensenius*

**The T-Stick: Maintaining a 12 year-old Digital Musical Instrument**  
*Alex Nieva, Johny Wang, Joseph Malloch, Marcelo Wanderley*

**MIDI Keyboard Defined DJ Performance System**  
*Christopher Dewey, Jonathan P. Wakefield*

**Democratizing Interactive Music Production over the Internet**  
*Trond Engum, Otto Jonassen Wittner*

**Using the Axoloti Embedded Sound Processing Platform to Foster Experimentation and Creativity**  
*Jean-Francois, Carlos Cotallo Solares, Carlos Toro Tobon, Andrew Willette*

**Introducing a K-12 Mechatronic NIME Kit**  
*Kyriakos Tsoukalas, Ivica Ico Bukvic*

**Neurhythmic: A Rhythm Creation Tool Based on Central Pattern Generators**  
*Daniel Bennett, Peter Bennett, Anne Roudaut*

**Evaluating LED-based interface for Lumanote composition creation tool**  
*James Granger, Mateo Aviles, Joshua Kirby, Austin Griffin, Johnny Yoon, Raniero A. Lara-Garduno, Tracy Hammond*

**GuitarAMI and GuiaRT: two independent yet complementary projects on augmented nylon guitars**  
*Eduardo Meneses, Sergio Freire, Marcelo Wanderley*

## TUESDAY, JUNE 5<sup>TH</sup> 12:30-2:00PM (CONTINUED)

### CTRL: A Flexible, Precision Interface for Analog Synthesis

*John Harding, Richard Graham, Edwin Park*

### Motivated Learning in Human-Machine Improvisation

*Peter Beyls*

### InterFACE: new faces for musical expression

*Deepak Chandran, Ge Wang*

### Hand Posture Recognition: IR, IMU and sEMG

*Richard Polfremam*

### Playsound.space: Inclusive Free Music Improvisations Using Audio Commons

*Ariane de Souza Stolfi, Miguel Ceriani, Luca Turchet, Mathieu Barthet*

### The Digital Orchestra Toolbox for Max

*Joseph Malloch, Marlon Mario Schumacher, Stephen Sinclair, Marcelo Wanderley*

### JythonMusic: An Environment for Developing Interactive Music Systems

*Bill Manaris, Pangur Brougham-Cook, Dana Hughes, Andrew R. Brown*

## WEDNESDAY, JUNE 6<sup>TH</sup> 12:00-1:30PM

### Low Frequency Feedback Drones: A non-invasive augmentation of the double bass

*Thanos Polymeneas Liotiris*

### The Orchestra of Speech: a speech-based instrument system

*Daniel Formo*

### Surveying the Compositional and Performance Practices of Audiovisual Practitioners

*Anna Weisling, Anna Xambó, Ireti Olowe, Mathieu Barthet*

### Sound Opinions: Creating a Virtual Tool for Sound Art Installations through Sentiment Analysis of Critical Reviews

*Anthony T. Marasco*

### A web-based 3D environment for gestural interaction with virtual music instruments as a STEAM education tool

*Kosmas Kritsis, Aggelos Gkiokas, Carlos Árpád Acosta, Quentin Lamerand, Robert Piéchaud, Maximos Kaliakatsos-Papakostas, Vassilis Katsourous*

### CubeHarmonic: A New Interface from a Magnetic 3D Motion Tracking System to Music Performance

*Maria C. Mannone, Eri Kitamura, Jiawei Huang, Ryo Sugawara, Yoshifumi Kitamura*

### The Whammy Bar as a Digital Effect Controller

*Martin M. Kristoffersen, Trond Engum*

### Timbre Tuning: Variation in Cello Spectrum Across Pitches and Instruments

*Robert Pond, Alexander Klassen, Kirk McNally*

### Tributaries of Our Lost Palpability

*Matthew Mosher, Danielle Wood, Tony Obr*

### Embedded Digital Shakers: Handheld Physical Modeling Synthesizers

*Andrew Piepenbrink*

### Live Repurposing of Sounds: MIR Explorations with Personal and Crowdsourced Databases

*Anna Xambó, Gerard Roma, Alexander Lerch, Mathieu Barthet, György Fazekas*

### The Feedback Trombone: Controlling Feedback in Brass Instruments

*Jeff Snyder, Michael R. Mulshine, Rajeev S. Erramilli*

### Mechanoise: Mechatronic Sound and Interaction in Embedded Acoustic Instruments

*Eric Sheffield*

### Do We Speak Sensor? Cultural Constraints of Embodied Interaction

*Jon Pigrem, Andrew P. McPherson*

### Re-engaging the Body and Gesture in Musical Live Coding

*Spencer Salazar, Jack Armitage*

# DEMOS

MOSS ARTS CENTER: ORCHESTRA LOBBY, LEARNING STUDIOS A & B

## MONDAY, JUNE 4<sup>TH</sup>

11:30AM-1:30PM

Étude No.1, for Curve  
*Nathan Asman*

Waveguide  
*Andrew Blanton*

Self/Work: Therapy Games  
*Anastasia Clarke*

The Tape Machine: I See Spirits  
*Anne Hege*

Vox Augmento: An Improvisable VR Sampling Interface  
*Philip Kobernik, Andrew Luck*

Voyage One — Mobile Phone Orchestra 2020  
Conducted by Animated Notation  
*Anders Lind*

Rain Shadow  
*Ben Robertson*

Interactive Chinese Shadow Puppetry  
*Chenyu Sun*

Demo: Real-time 3D Convolution Reverb with High Order Ambisonics  
*Tanner Uptegrove*

## TUESDAY, JUNE 5<sup>TH</sup>

12:30-2:00PM

Static Respirator  
*Sarah Reid, Ryan Gaston*

Collar Controller  
*Susan Grochmal*

JamSketch Eye: An Eye-tracking-based  
Improvisation System for Disabled People  
*Tetsuro Kitahara, Yasuyuki Saito, Sergio Giraldo,  
Rafael Ramirez*

## TUESDAY, JUNE 5<sup>TH</sup> (CONTINUED)

The Dark Side Demo  
*Shawn Lawson, Ryan Ross Smith*

Using Accelerometers for Gestural Control of  
Computer Music  
*Christopher Morgan*

The First Flowers of the Year Are Always Yellow  
*Miguel Ortiz, Hyeon Min Kim*

MechDrum™ and SDRdrum™ Sonic Pair  
Demonstration  
*Robert Van Rooyen, Andrew Schloss*

Live Painting as an Interface for Generating Music  
*Yosuke Sakai, Hiroto Takeuchi*

pandemonium trio  
*Paul Stapleton, Miguel Ortiz*

Her Painting for Performance  
*Rachel Tandon*

The Phone with the Flow: Combining Touch +  
Optical Flow in Mobile Instruments  
*Cagan Arslan, Florent Berthaut*

## WEDNESDAY, JUNE 6<sup>TH</sup>

12:00-1:30PM

Romp in Chaos  
*Edgar Berdahl*

Musical Chairs  
*Matthew Blessing*

Unsichtbares Klavier (invisible piano), Virtual  
Controller  
*Remy Canedo*

Paint the Melody in Virtual Reality  
*Kaiming Cheng*

Body Biopotential Sonification  
*Alan Macy  
Jed Osei & Adriana Negron, dancers*

OtoKin Installation  
*Palle Dahlstedt, Ami Skånberg Dahlstedt*

Circles  
*Barry Moon  
Kyle Hutchins, saxophone  
Annie Stevens, percussion*

game over — a Musical 2D Game Engine  
*Christof Ressi*

Teeth  
*Spencer Salazar*

## SUNDAY, JUNE 3<sup>RD</sup>

### MOSS ARTS CENTER: THE CUBE

12:00-7:30PM

Forgetfulness | 2018 | **CURATED**

*Zachary Duer, Ivica Ico Bukvic, Meaghan Dee*

### MOSS ARTS CENTER: MEZZANINE, BALCONY LOBBIES, EXPERIENCE STUDIO B

4:00-6:00PM

Meet NIME 2018 Installations Artists

## SUNDAY-WEDNESDAY JUNE 4<sup>TH</sup>-6<sup>TH</sup>

8:45PM-10:30PM

### MOSS ARTS CENTER: HARRIS AMPHITHEATRE

NIME Projection Mapping Exhibit | 2018 | **CURATED**

*Armi Behzad, David J Franusich, Mahshid Gorjian, George Hardebeck, Tacie Jones, Xindi Liu, Daniel Robert Monzel, Huy Quoc Ngo, Heather Arnold, Jesse Bibel, Zachary Cortez, Justus Darby, Nishat Jamil, Antonia Marigliani, Pei Qiu, Michael Rhoades, Yiming Wang*

## SUNDAY-WEDNESDAY

SUNDAY 3RD 10:00AM-6:00PM

MONDAY-WEDNESDAY 4TH-6TH 9:00AM-5:00PM

### MOSS ARTS CENTER: MEZZANINE, BALCONY LOBBIES, EXPERIENCE STUDIO B

Bǎi (摆): An Oscillating Sound Installation | 2018  
*Jelger Kroese, Danyi Liu, Edwin van der Heide*  
1st Floor in Experience Studio B

Attunement | 2018  
*Olivia Webb, Flo Wilson*  
2nd Floor in Mezzanine Lobby

Aphysical Unmodeling Instrument | 2017  
*Tomoya Matsuura*  
3rd Floor in Balcony Lobby

FingerRing installation | 2016-18  
*Sergey Kasich*  
3rd Floor in Balcony Lobby

### ARMORY GALLERY

Chorus for Untrained Operator | 2016  
*Stephan Moore, Peter Bussigel*

What We Have Lost / What We Have Gained | 2014  
*Matthew Mosher*

# MUSIC

MOSS ARTS CENTER: ANNE AND ELLEN FIFE THEATRE \*UNLESS OTHERWISE NOTED

## SUNDAY, JUNE 3<sup>RD</sup>

### 8:00-9:30PM | CONCERT #1

27b/6

*Alex Christie*

Absalon Crash

*Jean-Francois Charles*

Alien, L2Orkin' Around, An Ending | **CURATED**

*L2Ork*

Ikue Mori | **KEYNOTE**

*Ikue Mori*

### 10:30-11:59PM | CONCERT #2

Bone Piece

*Lyn Goeringer*

T(w)o Nearly Touch: You

*Bob Pritchard*

*Ziyian Kwan & Emmalena Fredriksson, dancers*

Language Embodiment ¿?

*Esteban Betancur, Jack Armitage*

Fragile Intersections

*Javier Jaimovich, Francisca Morand*

Experiment in Augmentation 2

*Scott Barton*

A Sound Walk Through Chaos Forest

*Edgar Berdahl*

Arrest

*Kristina Warren*

ち — chi for Candles, Live Voice, and Sounds

*Akiko Hatakeyama*

## MONDAY, JUNE 4<sup>TH</sup>

\*LOCATION: THE CUBE

### 5:30-7:30PM | CONCERTS #3A & #3B

Sympathetic Resonance

*Monica Bolles*

Libration Perturbed

*Palle Dahlstedt*

Texton Mirrors

*Erik Nyström*

The Murmurator

*Eli Stine, Kevin Davis*

### 8:00-9:30PM | CONCERT #4

Collective Response: Moving Forward | **CURATED**

*Becky Brown, Matthew Burtner, A.D. Carson, Ted*

*Coffey, Luke Dahl, Mona Kasra, Ryan Maguire, Ben*

*Robertson, Travis Thatcher, M.I.C.E.*

Who Was That Timbre I Saw You With?

*Kerry Hagan, Miller Puckette*

Pamela Z | **KEYNOTE**

*Pamela Z*

### 10:30-11:59PM | CONCERT #5

So Predictable!?

*Oliver Bown & Sam Ferguson, interactive audio design*

*Lian Loke & Kirsten Packham, movement*

*Angelo Fraietta, software support*

*Liam Bray, hardware support*

*Vert Designs, fabrication*

*Shandoah Goldman & Faith Levine, performers*

Pythia:Delphine21

*Mark Bokowiec*

*Julie Wilson-Bokowiec, performer*

Transplantation

*Mengtai Zhang, Yingjia Guo*

Clouds and Horses

*Spencer Topel*

Shapeshifting

*Christopher Tignor*

SloMo Study #2

*Federico Visi*

Beckon

*Anna Weisling, Anna Xambó*



## TUESDAY, JUNE 5<sup>TH</sup>

### 8:30-10:00PM | CONCERT #6

Windowless  
*Seth Thorn*

Goldstream Variations  
*Scott Deal*  
*Harry Chaubey & Erzsébet Gaál Rinne, performers*

who Are we Are here  
*Ben Sutherland*  
*Elizabeth Crone, flute*  
*David Perry, clarinet*

Onyx Ashanti | **KEYNOTE**  
*Onyx Ashanti*

### 10:30-11:59PM | CONCERT #7

Imaginary Trainscape  
*Takuto Fukuda, Ana Dall'Ara-Majek*

Stillness Under Tension  
*Charles Martin, Alexander Refsum Jensenius*

lichens — for soprano saxophone and interactive  
audiovisual system  
*Ben Carey*

Vibez  
*ALGOBABEZ = Joanne Armitage & Shelly Knotts*

Electroacoustic Guitar  
*Bernt Isak Wærstad*

Mozartkebab  
*Nick Acorne (Mykyta Prykhodchenko), Jonathan  
Carter, Takuto Fukuda*

## WEDNESDAY, JUNE 6<sup>TH</sup>

\*LOCATION: THE CUBE

### 5:30-7:30PM | CONCERTS #8A & #8B

Black Hole, Life on a Tidally-Locked Planet, and PI  
*Gadi Sassoon*

notherthanthevoid  
*Tsun Winston Yeung*

Quarries HSL  
*Shawn Greenlee*

108 Troubles  
*Rob Hamilton*

### 9:00-10:30PM | CONCERT #9

sonicpair #2 — duo for SDRdrum and MechDrum  
*Andrew Schloss, Robert Van Rooyen*

Nhoj Elocin  
*Nicole Caroll, John Robert Ferguson*

Dialogues with Folk-Rnn  
*Luca Turchet*

Chaotic Systems: A Hybrid Analog/Digital Feedback  
Network  
*Hunter Brown, Dominic Coles*

hmw3  
*Jon Bellona*

Why Should Our Bodies End at the Skin  
*Aurie Hsu, Steven Kemper*

robotcowboy  
*Dan Wilcox*

# WORKSHOPS

## SUNDAY, JUNE 3<sup>RD</sup>

TIME	SESSION TITLE
9:00-10:00AM Learning Studio B	The Animated Music Notation Workshop: Demonstrating the Possibilities for Rhythm-Based Music Education for Young Students <i>Ryan Ross Smith</i>
9:00AM-12:00PM Learning Studio A	A NIME Primer <i>Michael Lyons, Sidney S. Fels, Victor Zappi</i>
9:00AM-12:00PM DISIS	NexusHUB Distributed Performance Workshop <i>Jesse Allison, Tate Carson</i>
9:00AM-4:00PM Perform Studio	Audio-first VR: Imagining the Future of Virtual Environments for Musical Expression <i>Anil Çamcı, Rob Hamilton</i>
10:00-11:30AM Center of Dance	Experiments in Pressure Sensitive Multi-touch Interfaces <i>Peter Nyboer</i>
10:30-11:30AM Multipurpose	The New Evolution of Ableton Live 10 <i>Richard Graham</i>
1:00-4:00PM Learning Studio A	Gender Diversity at NIME <i>S. M. Astrid Bin, Anna Weisling, Sarah Schoemann</i>
1:00-4:00PM DISIS	Interactive Performances for Dance, Sound and Biosignals <i>Javier Jaimovich, Francisca Morand</i>
1:00-4:00PM Learning Studio B	Making Embedded Instruments with Bela <i>Andrew P. McPherson, Jack Armitage, S. M. Astrid Bin, Robert H Jack</i>
1:00-4:00PM Center of Dance	Re-Engaging the Body and Gesture in Musical Live Coding <i>Spencer Salazar, Jack Armitage</i>

## THURSDAY, JUNE 7<sup>TH</sup>

9:00-11:00AM Center of Dance	Interactive Argentine Tango Workshop: Learn How to Dance + Interactive System Demo <i>Courtney Brown, Brent Matthew Brimhall</i>
11:00AM-12:00PM Learning Studio A	MechXylo: K-12 Educational Mechatronics <i>Kyriakos Tsoukalas</i>
1:00-2:30PM Learning Studio A	Code+Chords: Using Visualization to Explore Music <i>Elena Ryan, AnnMarie Thomas, Emily Meuer, Lewis J. Tozour Jr., Danny Mahota</i>

# SPECIAL EVENTS

# NIME 2018

## SUNDAY, JUNE 3<sup>RD</sup>

6:00-7:30PM

MOSS ARTS CENTER: ORCHESTRA LOBBY

Opening Reception Featuring Remarks by:

*Rosemary Blieszner (VT CLAHS Dean)*

*Ivica Ico Bukvic (VT ICAT Senior Fellow)*

*Matthew Burtner (UVA Music Chair)*

*Francesca Fiorani (UVA Assoc. Dean Arts & Hum.)*

*Jody Kielbasa (UVA VP Arts)*

*Paul Steger (VT SOPA Director)*

*Ruth Waalkes (VT Assoc. Provost for the Arts)*

## MONDAY, JUNE 4<sup>TH</sup>

11:00AM-12:15PM

MOSS ARTS CENTER: ANNE AND ELLEN FIFE THEATRE

Keynote

*R. Benjamin Knapp*

Collaborators

*Eric Lyon, composer*

*Ariana Wyatt, soprano*

## TUESDAY, JUNE 5<sup>TH</sup>

6:00-8:00PM

SMITHFIELD PLANTATION

Banquet Featuring Remarks by:

*Cyril Clarke (VT Provost)*

## WEDNESDAY, JUNE 6<sup>TH</sup>

11:00AM-12:00PM

MOSS ARTS CENTER: ANNE AND ELLEN FIFE THEATRE

Keynote

*Pamela Z*

4:00-5:00PM

MOSS ARTS CENTER: ANNE AND ELLEN FIFE THEATRE

Future, Democratization, and Globalization of NIMES

*Onyx Ashanti, panelist*

*Peter Nyboer, panelist*

*Anna Xambo, panelist*

*Pamela Z, panelist*

*R. Benjamin Knapp, moderator*

5:00-6:00PM

MOSS ARTS CENTER: ANNE AND ELLEN FIFE THEATRE

Closing Ceremony

## THURSDAY, JUNE 7<sup>TH</sup>

12:00-1:00PM

LEARNING STUDIO B

Women in Music Technology Social

## NEW INTERFACES FOR MUSICAL EXPRESSION

HOSTED BY



UNIVERSITY  
of VIRGINIA

## PAPERS EXT. REVIEWERS

Freida Abtan, Timothy Adnitt, Roger Alsop, James Andean, Robert Appleton, Joanne Armitage, Jack Atherton, Sofian Audry, Tom Baran, Jeronimo Barbosa da Costa, Preston Beebe, Edgar Berdahl, Francisco Bernardo, Dario Bertero, Sandeep Bhagwati, Kiran Bhumber, Andrew Bluff, Oliver Bown, Kurijn Buys, Anil Çamcı, Joe Cantrell, Juan Pablo Carrascal, Alan Chamberlain, Selem Charfi, Aashish Chaudhary, James Correa, Nuno Correia, Christophe d'Alessandro, Palle Dahlstedt, Tom Davis, Thomas Deacon, Stefano Delle Monache, Jasmine Edison, Arne Eigenfeldt, Jonathan Ericson, Cumhur Erkut, Stefano Fasciani, John Ferguson, Frederic Font, Angus Forbes, Christian Frisson, Katsuya Fujii, Jeremie Garcia, Richard Graham, Francesco Grani, John Granzow, Owen Green, Shawn Greenlee, Carlos Guedes, Rob Hamilton, Yoon Chung Han, Lamtharn Hantrakul, Florian Heller, Mara Helmut, Cedric Honnet, Fu Yen Hsiao, Timothy Hsu, Matthew Hughes, Ke Huo, Patrick Hutchings, Todd Ingalls, Javier Jaimovich, Marcelo Johann, Bridget Johnson, Blake Johnston, Stefano Kalonaris, Martin Kaltenbrunner, Shunichi Kasahara, Tejaswinee Kelkar, Chris Kiefer, Rebecca Kleinberger, Joseph Larralde, Hans Leeuw, Sang-won Leigh, Grace Leslie, Rikard Lindell, Michael Lynch, Martin Marier, Mark Marshall, Charles Martin, Juan Carlos Martinez, Davide Andrea Mauro, Jon McCormack, Alex Mclean, Liang Men, Christos Michalakis, Romain Michon, Tom Mitchell, Stephan Moore, Fabio Morreale, Jim Murphy, Alexandra Murray-Leslie, Dhanya Nair, Kevin Nelson, Alex Nieva, Hiroki Nishino, Markus Noisternig, Benjamin O'Brien, Cárthach Ó Nuanáin, Reid Oda, David Ogborn, Miguel Ortiz, Dan Overholt, Laurel Pardue, Stefano Piana, Pedro Rebelo, Loïc Reboursière, Sarah Reid, Yosra Reikik, Michael Rivera, Charlie Roberts, Gerard Roma, Ryan Rose, Robert Rowe, J. Camilo Sanchez Carranco, Dario Sanfilippo, Avneesh Sarwate, Flávio Luiz Schiavoni, Dominik Schlienger-Tuomi, Seth Shafer, Tim Shaw, Eric Sheffield, Josh Simmons, Stephen Sinclair, Diana Siwiak, Benjamin Smith, Jeff Snyder, Julian Stein, Christine Steinmeier, Veronika Stelmakh, Tony Stockman, Jordan Suchow, Ben Swift, Enrique Tomas, Jim Torresen, Jeffrey Trevino, Takahiko Tsuchiya, George Tzanetakis, Erica Volta, Graham Wakefield, Marcelo Wanderley, Johny Wang, Nicholas Ward, Kristina Warren, Anna Weisling, Jiayue Wu, Lonce Wyse, Anna Xambó, Vanessa Yaremchuk, Ji Won Yoon, Mark Zadel, Victor Zappi, Mo Zareei.

## INSTALLATIONS

Sophia Brueckner, Peter Bussigel, Zachary Duer, Les Duffield, Frank Dufour, John Ferguson, Lyn Goeringer, Brian House, Stephen Lucas, Stephan Moore, Caroline Park, Simone Paterson, Scott Smallwood, Asha Tamarisa, Dean Terry, Rachel Weaver.

## PAPERS PROGRAM COMMITTEE

Jesse Allison, Florent Berthaut, Astrid Bin, Nick Bryan-Kinns, Marco Donnarumma, Georg Essl, Sidney S. Fels, Sam Ferguson, Rebecca Fiebrink, Jason Freeman, Emilien Ghomi, Toby Gifford, Amalia de Götzen, Michael Gurevich, Ian Hattwick, Lauren Hayes, Alexander Jensenius, Andrew Johnston, Sergi Jorda, Otsu Lähdeoja, Sasha Leitman, Michael Lyons, John MacCallum, Joseph Malloch, Adnan Marquez-Borbon, Andrew P. McPherson, Sile O'Modhrain, Garth Paine, Marcelo Queiroz, Rodrigo Schramm, Stefania Serafin, Paul Stapleton, Koray Tahiroglu, Luca Turchet, Federico Visi, Gualtiero Volpe, Ge Wang, Xiao Xiao, Woon Seung Yeo, Michael Zbyszynski.

## MUSIC

Freida Abtan, Patricia Alessandrini, Jesse Allison, Newton Armstrong, Shani Aviram, Scott Barton, Jon Bellona, Betsey Biggs, Bean Blaine, Per Bloland, Monica Bolles, Courtney Brown, Carol Burch-Brown, Peter Bussigel, Chris Carlson, Perry Cook, Lisa Coons, Natacha Diels, Luke DuBois, Alireza Farhang, Lainie Fefferman, Sidney S. Fels, Brad Garton, Ricky Graham, Shawn Greenlee, Gerard Gormley, Michael Gurevich, Kerry Hagan, Lauren Hayes, Akiko Hatakeyama, Christopher Haworth, Anne Hege, Elizabeth Hoffman, Aurie Hsu, Yvette Jackson, Javier Jaimovich, Gretchen Jude, Steven Kemper, Mari Kimura, Peter Kirn, Juraj Kojcs, Colby Leider, Miya Masaoka, Ali Momeni, Úna Monaghan, Gascia Ouzounian, Tae Hong Park, Simone Paterson, Xenia Pestova, Sam Pluta, Troy Rogers, Carla Scaletti, Meg Schedel, Laetitia Sonami, Paul Stapleton, Jeffrey Stolet, Atsu Tanaka, Zhen Wang, Kristina Warren, Anna Weisling, Seth Parker Woods, Bora Yoon.

## WORKSHOPS & DEMOS

Liesl Baum, Elizabeth Hoffman, Meggin Hicklin, David Tomasacci, Loga Torkian, Holly Williams.

# THANK YOU!