

ISATMA

2017

**5TH ANNUAL INTERNATIONAL SYMPOSIUM ON
ADAPTIVE TECHNOLOGY IN MUSIC AND ART (ISATMA),
RENSSELAER POLYTECHNIC INSTITUTE**

*EXPANDING THE IMPROVISING
COMMUNITY ACROSS ABILITIES,
BODIES, CULTURES*

OCTOBER 20-22

Friday & Sunday: CRAIVE-Lab
250 Jordan Road, Troy, NY
Saturday: EMPAC Building, RPI,
110 8th Street, Troy, NY

ISATMA.org



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Conference Information

ISATMA

The International Symposium on Adaptive Technology for Music and Art (ISATMA) is an annual event to promote new technologies and artistic experiences dealing with physical limitations of the human body and embodiment in general. The symposium addresses artists with physical disabilities and all others who are interested in extending their physical abilities through novel technologies to perform music and create art. The ISATMA is hosted by the Center for Cognition, Communication, and Culture and the Center for Deep Listening at Rensselaer Polytechnic Institute.

Theme

ISATMA 2017 presents 3 days of papers, workshops, and performances by scholars/practitioners who use adaptive technologies and music and media arts, to celebrate the playful and experimental memory of Pauline and connect creatively across abilities, bodies, and cultures

Sponsors

The Craig H. Neilsen Foundation supports the The International Symposium on Assistive Technology for Music and Art (ISATMA), a conference devoted to new technologies and artistic concepts for artists across abilities to create new multi-media works. This symposium, hosted by the Center for Cognition, Communication, and Culture, showcases adaptive musical interfaces in an immersive telepresence environment which celebrates international collaborations and limit-defying improvisations. Expanding the improvising community aims to stretch social, perceptual, and cultural differences potentially generative of creative transformation: of music, of community, of consciousness.

Christopher and Dana Reeve Foundation

Center for Cognition, Communication, and Culture, Rensselaer Polytechnic Institute
International Institute for Critical Studies in Improvisation (IICSI)
Ambiant Design

Conference Team

Organizing Committee

Jonas Braasch, Ted Krueger, Sherrie Tucker, David Whalen

Documentary Team

Adam Tinkle (documentation coordinator), Sam Chabot, Jon Mathews, David Dahlbom

Support Team

Art Exhibit

Enjoy the art exhibit in the CRAIVE-Lab on Friday and Sunday!
"Happy AUMI-versary!" Photos by Tami Albin

Important Information

Venues – Two Locations (4 miles apart)

Read carefully! Don't get caught in the wrong place at the right time!

Friday, Oct. 20 (10 am-9pm): CRAIVE-Lab, 250 Jordan Road, Troy, NY 12180

Saturday, Oct. 21 (10 am-10 pm): Experimental Media and Performing Arts Center (EMPAC), Studio 1, 110 8th Street, EMPAC Building, Troy, NY 12180

Sunday, Oct. 22 (10 am-5:30 pm): CRAIVE-Lab, 250 Jordan Road, Troy, NY 12180

CRAIVE-Lab Conference Venue (Fri & Sun)

The CRAIVE-Lab is located in Rensselaer's Technology Park adjacent to the Children's museum (same building but different entrance). The street address is: 250 Jordan Road, Troy, NY 12180. Free parking is available and the entry to the Lab is barrier free.

EMPAC Conference Venue (Sat)

Please make sure to enter EMPAC through the top-level main entrance and not the 44 8th Street entrance. Only the main entrance is open providing barrier free entrance. Studio 1 is on the second floor, reachable by elevator. Free parking is provided through the College Ave Garage. For further information and map, see: <http://empac.rpi.edu/visit>

Meals

At some breaks light meals will be provided but at other breaks meals will be on your own. Please see the conference schedule for details, either in this program or <http://isatma.org/>

Nearby Restaurants

There are many local restaurants. Most are located in the downtown area and there is quite a lot of variety from places that specialize in BBQ (Dinosaur), brew-pub (Browns), biergarten (Wolfs) wood-fired pizza (Bacchus), and sliders (Slidin Dirty) to Greek (Greek House), Indian (Shalimar), Caribbean (First Choice), Japanese (Unagi Sushi, Sushi King), Lebanese (Beirut), Italian (LoPorto's), Moroccan (Tera Kitchen), Korean (Sunhee's Farm and Kitchen) and many others. Most will require a taxi or other transport, especially for the uphill return.

Those closest to EMPAC are:

Moe's Southwest Grill, 1527 15th Street (College Avenue @ 15th)

Counter-serve chain with burritos to nachos, accessible, limited seating

Big Apple Pizza, 108 14th Street (College Avenue @ 14th)

Basic student pizza joint, limited seating, accessible

Minissale's Wine Cellar Cafe, 1 14th Street (College to 14th, right for 5 blocks)

Neighborhood Italian Family Restaurant

Muza, 1300 15th Street. (College Avenue, then right on 15th about 4 blocks)

A well-regarded neighborhood Polish restaurant and pub

One Mu, 2207 15th Street (College Avenue, then left on 15th about 4 blocks)

A Nano-restaurant, Breakfast and Kofta Burgers, no seating

Ali Baba, 2243 15th Street (College Avenue, then left on 15th about 6 blocks)

Very good Mediterranean fare, vegetarian options, accessible.

Documentation

We are grateful to multidisciplinary artist and scholar Adam Tinkle, who teaches media and documentary studies at Skidmore College, for volunteering to work with a team of RPI graduate students to film the events of ISATMA 2017. The purpose of gathering this footage is threefold: 1) archival purposes; 2) documentary purposes (allowing permission for documentarians to use the archived footage; and 3) website accessibility (allowing more people to experience the presentations and performances).

We will not film your presentation/performance without your permission. Thank you in advance to those who opt to share their presentations/performances on film, continuing to build our film documentation of ISATMA meetings.

Social Media

ISATMA has a hashtag! It is... [drum roll]... **#ISATMA**

*Focus on
Deep
Listening*

Friday, October 20 / CRAIVE-Lab

Presentations & Workshops 10am-6pm / CRAIVE-Lab

10:00-10:10	Welcome & Introduction of Friday
10:10-10:20	Introduction to Deep Listening – Lisa Barnard Kelley
10:20-11:20	ASL for DL Workshop - Michelle Temple
11:20-11:40	The Sound of Healing – Kate Laity - LUNCH -
1:15-2:45	Deep Listening Body & Movement Workshop- Heloise Gold -Break-
3:15-4:45	Deep Listening Dreaming Workshop - Ione Discussion on Deep Listening across Abilities

Tribute Concert for Pauline Oliveros I- Focus on Deep Listening 7-9pm / CRAIVE-Lab

Heloise Gold, Ione, Anne Bourne

Part I: Text Scores by Pauline

- 1. The New Sound Meditation (presented by Ione)**
- 2. Body Tune-Up (presented by Heloise Gold)**
- 3. Teach Yourself to Fly (presented by Anne Bourne)**

Part II: Cistern Concert

- 1. Invocation by Ione**
- 2. Concert (Free Improvisation)**
- 3. Free Improvisation with Audience**

Saturday, October 21 / EMPAC

Presentations & Workshops 10am–5:30 pm (EMPAC Studio 2)

CELEBRATING 10 YEARS OF THE ADAPTIVE USE MUSICAL INSTRUMENT

- 10:00** Welcome & Introduction of Saturday
- 10:10-10:40** **The Use of AUMI in a Mixed Therapeutic/Pedagogic Setting: Summary of Four-Year Collaboration with the Mackay Centre School** – Eric Lewis
- 10:40-11:10** **AUMI Sings: Disrupting Choral Practice** – Laurel Forshaw, Gillian Siddall, Ellen Waterman
- Break -**
- 11:30-12:00** **Improvising Inclusive Communities** – Kip Haaheim, Sherrie Tucker
- 12:00-12:30** **How Adaptive? How Useful? Designing Software for Community Use** – Henry Lowengard
- LUNCH-**
- 1:30-2:00** **Using Adaptive and Adapted Instruments in Community Music Settings** – Jesse Stewart
- 2:00-2:30** **Special Rec / Body Language Presentation/Workshop** – Lisa E. Harris
- Break-**
- 2:40-3:40** **Hands-On with AUMI v.4 Workshop** – John Sullivan
- Break-**
- 4:00-5:30** **AUMI MUSIC: Soundlab Workshop & Open Jam Session** – Leaf Miller & Jesse Stewart
This workshop provides "hands on" opportunities to play AUMI, using the latest laptop and iPad versions. We will create an improvisational performance piece for the Saturday night concert at EMPAC featuring the adaptive musical instrument, drums and percussion. All conference attendees welcome!
- DINNER- (on your own, will not be provided)**

Adaptive Use Musical Instruments (AUMI)

ISATMA pays tribute to Pauline Oliveros's AUMI Research Project. Many long-time team members who worked with Pauline to develop the software, use the instrument in inclusive artistic, community, educational, and therapeutic contexts have gathered in Troy this weekend to celebrate 10 years of the AUMI.

To mark the occasion, the AUMI Research Group is pleased to announce brand new versions of the software interface/app and a new website!

Download 4.1 for Mac and PC; and 1.1.6 for iOS on the new AUMI website: <http://aumiapp.com>

Subscribe to the AUMI mailing list by going to the "Get Involved" tab on the website.

#aumimusic

Tribute Concert for Pauline Oliveros II — Focus on Adaptive Instruments 7:30-10pm EMPAC

- 7:30-7:50** Lucas Garrett: a performance of “Evening’s Come But It’s Not Dark”
- 7:55-8:15** Workshop Presentation - Leaf Miller, Jesse Stewart and workshop participants
- 8:20-8:30** On-stage interview with David Whalen about Jamboxx histor
- 8:30-8:50** Erik Klein, David Whalen: Music Machines
-Break-
- 9:00-9:15** On-stage interview with Leaf Miller about AUMI history
- 9:15-9:30** Pauline Oliveros: Exchanges & Follow Me, performed by AUMI Group Ensemble
- 9:35-9:55** 4 Wheel City: Welcome to Reality Tour
4 Wheel City is an entertainment organization started by Namel “Tapwaterz” Norris and Ricardo “Rickfire” Velasquez two talented hip-hop artists and motivational speakers in wheelchairs due to gun violence. Our mission is to use hip-hop music and culture to create more opportunities for the disabled and inspire people not to give up in life. In addition, show the world that people with disabilities can still have talents, dreams, and deserve to be treated equal.
- 9:55-10:00** Pauline Oliveros: The Grand Buddha Marching Band – Jesse Stewart, Drum Major

Sunday, October 22 / CRAIVE-Lab

Presentations/Workshops 10am–5 pm (CRAIVE-Lab)

- 10:00-10:10 **Welcome and Introduction of Sunday**
- 10:10-10:40 **Inclusive, Distributed MIDI Rock Band**– Jonas Braasch & David Whalen
- 10:40-11:10 **Toolkit for Creative Network Performance** – Justin Yang
- 11:10-11:40 **Designing Immersive Audiovisual Environments** - N. Keil, M. Huang, Cem Çakmak
- 11:40-12:10 **Exploring 21st-Century Musical Creation and Composition** – Charles Zotique
- LUNCH-
- 1:00-2:00 **ArtRage Workshop** - David Whalen
- Break-

Tribute Concert for Pauline Oliveros III: Spatial Sound (Cistern) 2:20-4:05 (CRAIVE-Lab)

- 2:20-2:40 **Telematic Tales** - Alper Kaya, Tobias Koslowski
- 2:45-3:05 **Artrage Workshop Presentation: Workshop participants and ISATMA Music Ensemble**
- Dynamic Visual Scenes Improvisation**
- 3:05-3:20 **Moving Space (Pauline Oliveros)**
- Break-
- 3:30-3:40 **Dynamic Visual Scenes: Jonas Braasch, narration, ISATMA Music Ensemble (3:30-3:40)**
- 3:40-4:15 **Free Cistern Improvisation: ISATMA Music Ensemble**
- Break-

Presentation

- 4:30-4:50 **Assistive Music Performance Using Ableton and the Jamboxx** - Ian Rios, Kathryn Lovell, and Robert Dylan Smock
- 4:50-5:00 **Closing Remarks**

Text Scores by Pauline Oliveros

Teach Yourself to Fly

Pauline Oliveros, 1974

- I -

Any number of persons sit in a circle facing the center. Illuminate the space with dim blue light. Begin by simply observing your own breathing. Always be an observer. Gradually allow your breathing to become audible. Then gradually introduce your voice. Allow your vocal cords to vibrate in any mode which occurs naturally. Allow the intensity to increase very slowly. Continue as long as possible naturally, and until all others are quiet, always observing your own breath cycle.

Variation: Translate voice to an instrument.

- II -

Search for a natural or artificial canyon, forest or deserted municipal square. Perform Teach Yourself to Fly in this space.

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The New Sound Meditation

Pauline Oliveros 1988

Listen
During any one breath
Make a sound
Breathe
Listen outwardly for a sound
Breathe
Make exactly the sound that someone else has made
Breathe
Listen inwardly
Breathe
Make a new sound from that no one else has made
Breathe
Continue this cycle until there are no more new
sounds.

Bang On A Can Festival
May 3, 1988

Body Tune Up

Pauline Oliveros (1973)



From a comfortable position lying down, begin by sensing the body thoroughly from head to toes. When you feel deeply relaxed and completely tuned in to all parts of the body inside and out, allow an imaginary sound to come to mind. When the imaginary sound is clear, then make the sound inwardly, or out loud.

Imagine that you are sending this sound to benefit the part of the part of your body that needs it most. Focusing on your own sensations, continue until that part of your body feels satisfied or eased. Rest, sense the body as a whole then listen for another sound and repeat the process. Register how it feels to vibrate and tune different parts of your body with the sounds you make.

Exchanges

For singers and/or instrumentalists



Follow the leader.



Accompany the leader.



Blend with the leader.

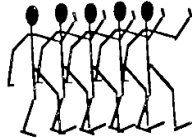


Become the leader.

April, 1979

Follow Yourself

For soloist or ensemble



Listen to everything.

Notice everything.

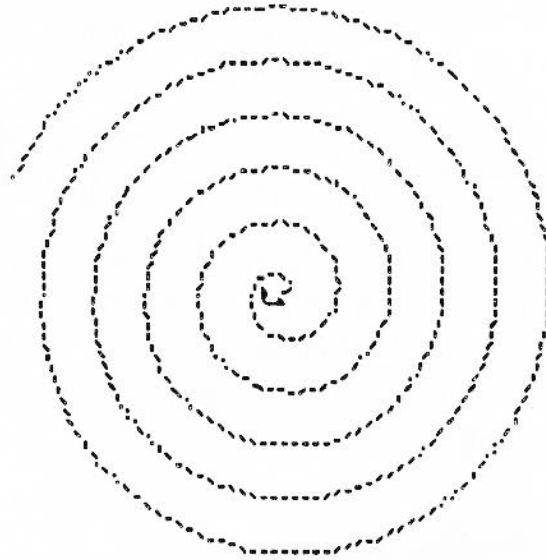
Get a body sense of everything.

Play a tone or make a sound and/or movement.

Repeat this cycle indefinitely.

1979

The Grand Buddha Marching Band



The band forms a tight spiral single file around the Drum Major who stands at the center. After a beginning cue from the Drum Major the band moves slowly at first, maintaining and expanding the spiral formation. As the spiral formation expands and the band members become spaced farther and farther apart, marchers might speed up, slow down and pass each other. The march continues until the marchers have completely dispersed.

Every one is welcome to join the march. The more marchers the greater the effect. The attitude for the march is joyful and celebratory. The motivation for the sound-making is to create beneficial energy for everyone.

Each person may dress individually and independently for the march. The uniform, costume or regular wear could be colorful, fantastic or ordinary.

Each marcher may play an instrument or sound source of her/his own choice. Marchers may also choose to be silent or express themselves in other ways.

Marchers will perform their own music or sounds

independently and spontaneously during the march while listening and maintaining full awareness and respect for other marchers' music or sounds. Marchers are also free to play and sound together simultaneously as a whole or in sub-groupings. The Drum Major may lead The Grand Buddha Marching Band in any way or manner that seems appropriate with respect to the given instructions.

1981

Participant Bios

Tami Albin is a multi-media artist from Canada and librarian at the University of Kansas. She lives in Lawrence, Kansas with her partner, and four very spoiled cats.

Curtis Bahn is a composer and improviser who specializes in live interactive electronic performance. Currently he is Associate Professor of Music Composition/ Interactive Performance, and Director of the Graduate Programs in the Arts at Rensselaer Polytechnic Institute in Troy New York. He received his Ph.D. in music composition from Princeton University. From 1986-1993 he was the Technical Director of the Center for Computer Music of the City University of New York where he worked and studied with composer Charles Dodge. His music has been presented internationally at venues including Lincoln Center, India International Centre – Delhi, Sadler's Wells - London, Palais Garnier - Paris, Grand Theatre de la Ville - Luxembourg, as well as numerous festivals, academic conferences and small clubs. Curtis was the composer for a major residency project entitled "Motive," in interactive dance and graphics with Choreographer Trisha Brown and Visual Artists Paul Kaiser, Marc Downey and Shelly Eshkar at the Arizona State University Arts Media and Engineering Program. He released a solo recording of live electronic performance on his extended string bass entitled "R!q," available on the EMF label, a duo recording entitled ".swank" with Dan Trueman on the cycling 74 label, and a DVD with Pauline Oliveros and Tomie Hahn on the Deep Listening label. Currently Curtis is a formal student of the Sitar (Shagird) with virtuoso Ustad Shahid Parvez Khan, and has travelled extensively in India studying and accompanying his Guru as the Asian Cultural Council's 2012 "Ralph Sameulson Fellow." He has applied his studies in Indian Classical music to contemporary electronic performance, interactive instrument and installation designs, and his performance with the "Machine Orchestra" a mixed human robotic ensemble at CalArts.

Anne Bourne. Composer Anne Bourne creates sound work from emergent streams of cello and voice, and writes prose. Anne facilitates the works of composer Pauline Oliveros, with spoken word artist Ione. Seasoned in performance collaboration, Anne believes each creative expression is an opportunity for holding difference tones, through listening.
annebournemusic.com

Jonas Braasch, Associate Professor in the School of Architecture and Director of the Center for Cognition, Communication, and Culture, is a psychoacoustician, aural architect, and experimental musician. His research work focuses on functional models of the auditory system, large-scale immersive and interactive virtual reality systems, and intelligent music systems. Currently, he is interested in binaural models that can handle room reflections and simulate head movements. He is also working on an intelligent music agent, Caira, to understand and simulate human creativity in the context of Free Music improvisation. His publications and recordings include: "A cybernetic model approach for Free Jazz improvisations," *Kybernetes* 40/7–8 (2011), 984–994 and the recording, *Quartet for the End of Space* (Pogus Records 2011), with Pauline Oliveros, digital accordion; Francisco López (electronics), Doug Van Nort (electronics), Jonas Braasch (soprano saxophone), which contains 8 electroacoustic compositions (2 from each composer) based on improvised session material with the ensemble.

Cem Çakmak. "I am an engineer interested in computer music, digital arts, game mechanics and more recently light. I have a BEng from University of Manchester and an MSc from

Istanbul Technical University. Currently I'm a PhD student and Research Assistant at Rensselaer Polytechnic Institute."

Laurel Forshaw. Born and raised in Thunder Bay, ON, Laurel Forshaw now calls Toronto home. Laurel holds a Master of Arts in Music Education (Choral Conducting) and Kodaly and Orff-Schulwerk certification from the University of St. Thomas, MN. She is currently a PhD in Music Education candidate at the University of Toronto and conductor of the Strata Vocal Ensemble in Hamilton, ON, a mixed voice chamber choir. In Thunder Bay, Laurel was the Artistic Director of the Dulcisono Women's Choir, and founder and AD of the Rafiki Youth Choir. She was a contract lecturer at Lakehead University, teaching conducting courses for the Department of Music. Dedicated to providing singing opportunities for all, Laurel created a Kodaly-based program for adult women to learn music literacy and vocal skills in a choral setting. She also provided professional development and facilitated learning labs for the itinerant music teachers of the Lakehead Public School Board.

Lucas Garrett. Coming from Upstate New York, Lucas Garrett has played professionally for over four years. In this time, he has incorporated his blend of progressive rock, folk, classic rock and indie to create a unique set-list that audiences enjoy time and time again. With the inclusion of original music into his set, Lucas has picked up only more attention as his live appearances continue. From performing at local coffeehouses, television appearances, and playing at such theaters as Charles Wood in Downtown Glens Falls, Little Theater on the Farm in Fort Edward, and the Hudson River Music Hall in Hudson Falls, Lucas has garnered the attention of varying venues in a short amount of time. The vast repertoire heard at each performance guarantees the audience something new every time. Playing with a band or as a solo artist, and armed with an arsenal of over an album's worth of original music and covers ranging from the 1950's through to modern music, people of all ages are able to enjoy his sets. Lucas released his debut EP, "Evening's Come, But It's Not Dark," on January 20th, 2017.

Heloise Gold is a dancer, performing artist, choreographer, and t'ai chi/qi gong instructor. She was inducted into the Austin Arts Hall of Fame in 2015. She moved to Austin from NYC in 1979, and became known as one of Austin's premiere performance/dance artists, being a key player in the experimental work developing at the time. A generative artistic and teaching relationship with Pauline Oliveros began in the 1980's and in 1991 Oliveros, lone and Gold began co-conducting annual Deep Listening Retreats which happened over a 25 year span. She has developed the curriculum for the Deeply Listening Body work that is being taught currently. Heloise continues to collaborate and perform with many current artistic visionaries. She highlights experimentation in her works and infuses her deep sense of humanity, humor and vision into everything she creates. website: heloisegold.com

Kip Haaheim, Professor, Music Theory and Music Composition, University of Kansas, is a composer, musician, and digital artist focused on electro-acoustic music involving multi-media. He is a founding member of AUMI-KU InterArts (2012) and co-facilitator of "Do You AUMI?" community jams and recording sessions. His body of work includes experimental videos, chamber music, audio installations, and various electro-acoustic compositions; he also composed and produced the score for Ryan Jones's documentary film *Fall from Grace* and Kevin Wilmott's feature film *The Only Good Indian*. In his electro-acoustic music he often mixes live musicians with computer-processed sounds and tends to favor live performance over fixed-media. Haaheim's most recent work often features improvisation and the use of non-traditional methods of controlling audio playback and processing.

Lisa E. Harris is a creator from Houston, Texas. This American soprano, performer and composer who often creates with media, movement performance, and installation, is also a filmmaker, singer/ songwriter, writer, educator, healer, community organizer, environmental transformer and Mother Earth advocate. Recent performances include "EarthSeed" a co-composition with flautist Nicole M. Mitchell in celebration of the science fiction author Octavia Butler, commissioned by the Art Institute of Chicago in 2017. She was also a 2017 guest fellow at the Maggie Allessee National Center for Choregraphy. Harris' 10 year durational work, "Cry of the Third Eye, a new opera film in Three Acts" is an ongoing project that creatively archives the affects of gentrification on her neighborhood. In 2007, Harris founded Studio Enertia, a multi-media production collective, and in 2013 began the artists run Studio Enertia Artist Residency Program in Houston out of her grandparents' old home. A collaborative artist and lead vocalist with Jason Moran presents A Fats Waller Dance Party, Harris has toured across the world with this project, most currently landing at the 2017 Newport Jazz Festival. Li can also be heard as a featured vocalist on the Grammy nominated album All Rise: A Joyful Elegy for Fats Waller. Upcoming engagements include the role of Orkney Woman in the premiere of "The Nubian Word for Flowers-a phantom opera" by IONE and Pauline Oliveros. Li is a 2015 Valiante Award recipient and a 2016 inaugural artist in residence at The New Quorum of New Orleans, Louisiana. She is a practitioner of Deep Listening and will be receiving her certification from the Deep Listening Institute this December.

M. Huang

Ione is an author/playwright/director and an improvising text/sound artist. Her works include her memoir. *Pride of Family; Four Generations of American Women of Color*, a NY Time Notable book on its publication. *Nile Night, Remembered Texts from The Deep, Listening in Dreams & This is a Dream! And Spell Breaking Anthologies of Women's Mysteries #1 and 2.* She is playwright and director of *Njinga the Queen King* (BAM's Next Wave Festival), the dance opera *Io and Her and the Trouble with Him* (Union Theater, Wisconsin), *The Lunar Opera; Deep Listening For_Tunes*, (Lincoln Center Out of Doors) and the experimental narrative film *Dreams of the Jungfrau*, shot high in the Swiss Alps. All feature music and sound design by Pauline Oliveros. Their opera, *The Nubian Word for Flowers, A Phantom Opera*, inspired by the Nubian Diaspora and the life of Lord Horatio Herbert Kitchener of Khartoum, will premiere at *Roulette Intermedium* in Brooklyn, NY on November 30, 2017. A specialist in dreams and the creative process, Ione conducts retreats throughout the world. Ione is the Founding Director of the Ministry of Maat, Inc (MoM, Inc) and Former Artistic Director of Deep Listening Institute, Ltd. She is a Deep Listening Certification Instructor, Center for Deep Listening, Rensselaer, Troy, NY.

Alper Kaya and Tobias Koslowski are Jamboxx artists who have been performing music at the ISATMA since the beginning of the conference series. Alper Kaya performs both Western repertoire and traditional Turkish songs on the Jamboxx. This instrument enables him to play music despite ALS-related mobility restrictions.

Nathan Keil is a senior at RPI majoring in applied physics with a concentration in acoustics. He has been working on this project for ISATMA as part of an undergraduate co-op and plans on pursuing a master's degree in acoustics next fall.

Lisa Barnard Kelley is an Improvising vocalist and writer. Her first introduction to Deep Listening began on a journey with Pauline Oliveros and her collaborator Ione to Southern Italy, where she studied the mysteries of the Black Madonna while also taking measurements of the acoustical resonance of sacred sites. The journey's intersection of science and the sacred

impacted Lisa profoundly, and she spent the next twelve years working closely with Oliveros and lone as a staff member and artist of the Deep Listening Institute and lone's nonprofit Ministry of Maat, performing in numerous festivals and concerts including a few AUMI presentations. In 2014, she officially completed her Deep Listening Certificate after being the Conference Director for the 2nd Deep Listening Conference in Troy, New York. Kelley has assisted at Deep Listening Retreats in New York, Spain, and the UK, and she facilitates workshops throughout the Hudson Valley.

Erik Robo Sax Klein. Erik knew early on that electronic music was his destiny. Growing up, he was fascinated by the synthesized textures of Zawinul, Jan Hammer and Wendy Carlos. After years of traditional saxophone study, he felt the saxophone limited him musically. "It only has one sound – sax." says Erik. In 1987 he started playing the EW1000, a sax-like synthesizer, and his sonic palette became limitless. Now, he wasn't restricted to only one sound. A whole new world of sonic potential opened up for Erik which he fully explored in various jazz fusion bands. In 1997 Erik discovered the Synthophone - an actual saxophone modified to play synthesizers. His love of sax and synths was combined into one instrument. To quote Erik, "The Synthophone became bionically attached to my inner voice!" Thus, Erik Klein was transformed into Robo Sax. With his Synthophone, Robo Sax can emulate traditional acoustic instruments as well as futuristic synthesizer sounds never before heard. Robo Sax is a Softwind Instruments Synthophone Artist, and endorses Patchman Music & Samplemodeling.

Tobias Koslowski and Alper Kaya are Jamboxx artists who have been performing music at the ISATMA since the beginning of the conference series. Tobias has composed many tunes on the Jamboxx that have been featured on the Jamboxx and ISATMA webpages. He likes to write and perform "chill out" songs and switched to the Jamboxx after losing the ability to play traditional instrument due to muscular dystrophy about 10 years ago. He lives in Dusseldorf, Germany and collaborates with artists worldwide through telematic music systems.

Ted Krueger, Associate Professor of Architecture, RPI, holds a PhD in Architecture (by design) from RMIT, and a professional Master of Architecture degree from Columbia University following graduate work in architectural history at the University of Chicago and an eclectic undergraduate education in the social sciences and the arts at the University of Wisconsin-Madison and the School of the Art Institute of Chicago. Following his professional education, Krueger spent twelve years in practice gaining substantial experience in laboratories and technical buildings, high-end retail and residential projects in New York City, and large-scale mixed-use developments in Southeast Asia. Krueger's design work has resulted in numerous publications, exhibitions, and lectures on an international basis for the last twenty years. In addition, his design work has led to two New York Foundation for the Arts Fellowships, a New York State Council for the Arts Project grant, a residency at ArtPark in Lewiston, NY, and his selection as one of the "Emerging Voices" by the Architectural League of New York.

Kate Laity is Associate Professor of English at the College of Saint Rose. A medievalist, she has long been interested in the history of magic especially charms and more recently has been incorporating sound studies into her work. She also teaches film and fiction and has been widely published both as a scholar and a novelist.

Eric Lewis is the director of the Institute for the Public Life of Arts and Ideas at McGill University, where he is a professor of philosophy. His research focuses on the philosophy of improvised arts. He is also an active improviser on brass and electronics. His AUMI work includes a long-time collaboration with the MacKay Centre School in Montreal and the occupational therapy program at McGill.

Kathryn Lovell is a Senior Undergraduate Student in Computer Science & Mathematics at RPI. This past summer she worked with the CCC to develop new protocols for musical communication in tandem with the Jamboxx. She has a background in Systems and Network Programming, and worked previously with STEPTools on the Digital Thread for Manufacturing, a solution for monitoring manufacturing tool processes remotely in real time. In her spare time she enjoys designing transit networks.

Henry Lowengard. Kingston NY based composer and programmer Henry Lowengard has been creating experimental computer music, and the programs to create it, since the early 70s. He has performed with Nancy O. Graham in some of her Deep Listening Dream Festivals, and Dr. Oliveros used his droning iOS apps in her piece DroniPhonia (2009). He is currently in the band Mamalama, playing hammered dulcimer glockenspiel, melodica, and tenor recorder, and plays with the Catskill Mountain Gamelan, playing various instruments. Look for him online by searching for "jhhl", and reading <http://jhhl.net> and <http://www.echonyc.com/~jhhl>.

Leaf Miller is a professional musician, teacher and instrument builder, playing drums and percussion in the World Music Tradition for over 40 years. She is an occupational therapist at Abilities First School in Poughkeepsie, NY, where she piloted the AUMI (Adaptive Use Musical Instrument) prototype in 2007, and continues to lead an inclusive weekly improvisational drum circle using AUMI. She is the musical director of Women Who Drum, a multi-media project dedicated to women's world drumming traditions. Leaf has been an occupational therapist since 1988. In her work with children with special needs, she strives to incorporate the healing benefits of drumming with her clinical training in human movement and development. She has been a primary collaborator with Pauline Oliveros and the Deep Listening Institute and RPI from the beginning of the AUMI Project, with the goal of developing and providing alternative musical instruments for people with physical challenges. Leaf leads AUMI Trainings, hands-on workshops and sound labs nationally and internationally which focus on using AUMI to improvise across abilities, in variety of community, school, and arts settings.

Namel "Tapwaterz" Norris is co-founder, along with Ricardo "Rickfire" Velasquez, of 4 Wheel City, an entertainment organization of talented hip-hop artists and motivational speakers in wheelchairs due to gun violence. "Our mission is to use hip-hop music and culture to create more opportunities for the disabled and inspire people not to give up in life. In addition, show the world that people with disabilities can still have talents, dreams, and deserve to be treated equal."

Ian Rios is Senior Computer Science and Computer Music student at Rensselaer Polytechnic Institute. Ian writes, "I experiment with music and sound in various programming aspects every single day. Most of my free time is devoted to designing audio and MIDI plugins, creating sound via synthesizers, composing music for various projects, and educating myself about acoustics and new concepts within the 21st century computer music realm."

Gillian Siddall is Vice-President, Academic and Provost at OCAD University. Her research area is Canadian literature, with a focus on musical improvisation, both within and outside literary contexts. Publications include "A Musical Interface for People with Severe Physical Disabilities (co-authored with Pauline Oliveros, Leaf Miller, Jaclyn Heyen, and Sergio Hazard). Music and Medicine (2011); "I want to live in that music': Blues, Bessie Smith and Improvised Identities in Ann-Marie MacDonald's Fall on Your Knees." Critical Studies in Improvisation (2005); and "Nice Work if You Can Get It: Women in Jazz" (co-authored with Ajay Heble), Landing on the Wrong Note: Jazz, Dissonance and Critical Practice (Routledge 2000). Her latest book, co-edited with Dr. Ellen Waterman and published in 2016 by Duke University

Press, is entitled *Negotiated Moments: Improvisation, Sound, and Subjectivity*. Gillian is also a jazz vocalist, choral singer, and co-founder of the Guelph Jazz Festival.

Robert Dylan Smock is a member of the RPI Class of 2018, currently studying Aeronautical Engineering. Outside of class he is an avid musician and songwriter and a member of several campus bands, including The 8th Street Swing Band, The New Band, and experimental jazz quintet Don't Tell Kevin. He has been playing piano for 16 years and started producing and DJing electronic music when he was a freshman at RPI. He spent this past summer working to develop the Jamboxx at Albany Medical Center and collaborating with David Whalen on an assistive electronic music performance program to bring to hospitals and rehabilitation centers around the Albany area. Dylan grew up in Fairbanks, Alaska.

Jesse Stewart is an award-winning composer, percussionist, artist, researcher, writer, and educator dedicated to re-imagining the spaces between artistic and academic disciplines. His music has been documented on over twenty recordings including Stretch Orchestra's self-titled debut album, which received the 2012 "Instrumental Album of the Year" Juno award. He has been widely commissioned as a composer and artist, and has performed and exhibited internationally. In 2012, he founded the We Are All Musicians (WAAM) project, through which he uses various adaptive use musical instruments to enable people who have experienced barriers to making music historically (because of disability, poverty, and/or a lack of musical training) to make music in a supportive, inclusive setting. He is a music professor at Carleton University and an adjunct professor in the Visual Arts program at the University of Ottawa.

John Sullivan is a musician, music technology researcher and Ph.D. candidate at McGill University whose work focuses on the design of new instruments and technologies for music and multimedia performance. His current research includes projects in motion capture and movement analysis of live performance, development and testing of haptic interfaces, and user-driven methodologies for the design and evaluation of digital musical instruments. As a musician, Sullivan has been a part of several indie rock groups from the northeastern US. He has released several albums under various names, and toured extensively in the US, Canada, and Europe.

Michelle Temple is an artist and educator whose research investigates the intersection of Deaf Studies and Electronic Music composition. As an advocate to the Deaf community, her research aims to facilitate communication between the hearing/Deaf community. As a teaching pedagogy, she strives to build ideas of ethics and inclusivity of sensing capabilities into electronic hardware so as to inspire new experimental music that extends into the field of assistive technology.

Sherrie Tucker (Professor, American Studies, University of Kansas) is the author of *Dance Floor Democracy: the Social Geography of Memory at the Hollywood Canteen* (Duke, 2014), *Swing Shift: "All-Girl" Bands of the 1940s* (Duke, 2000) and co-editor, with Nichole T. Rustin, of *Big Ears: Listening for Gender in Jazz Studies* (Duke, 2008). She is a member of two major collaborative research initiatives: International Institute of Critical Improvisation Studies and Improvisation, Community, and Social Practice (for which she served as facilitator for the Improvisation, Gender, and the Body research area) both funded by the Social Sciences and Humanities Research Council of Canada. She is a founding member of the Melba Liston Research Collective, a member of the AUMI (Adaptive Use Musical Instrument) research team of the Deep Listening Institute, and founding member of AUMI-KU InterArts, one of six member institutions of the AUMI Research Consortium. She was the Louis Armstrong Visiting Professor at the Center for Jazz Studies at Columbia University in 2004-2005, where she was a member

of the Columbia Jazz Study Group. With Randal M. Jelks, she co-edits the journal *American Studies*. She serves with Deborah Wong and Jeremy Wallach as Series Editors for the Music/Culture Series at Wesleyan University Press.

Ricardo “Rickfire” Velasquez is co-founder, along with Namel “Tapwaterz” Norris, of 4 Wheel City, an entertainment organization of talented hip-hop artists and motivational speakers in wheelchairs due to gun violence. “Our mission is to use hip-hop music and culture to create more opportunities for the disabled and inspire people not to give up in life. In addition, show the world that people with disabilities can still have talents, dreams, and deserve to be treated equal.”

Ellen Waterman is Professor of Ethnomusicology in the School of Music at Memorial University of Newfoundland. As an artist/scholar, her research interests range across improvisation, contemporary performance, gender, sound and ecology. With Gillian Siddall, she is co-editor of *Negotiated Moments: Improvisation, Sound and Subjectivity* (Duke 2016). Waterman is an executive member and Memorial site coordinator for the International Institute for Critical Studies in Improvisation (funded by a SSHRC Partnership Grant). She developed the Improvisation Tool Kit (2010) drawing together insights from community-engaged projects with youth-at-risk and children with disabilities to create a free online resource for teaching improvisation. Waterman also participates in an international research project to develop the Adaptive Use Musical Instrument (AUMI) software interface, a musical instrument that enables people who have very limited controlled (voluntary) movement to independently engage in music making.

David Whalen lives in Glenville New York and has been working on musical instruments for people with disabilities since about 2004. Whalen started working on utilizing a harmonica for respiratory therapy. Eventually he started working on the Magic flute in 2006 and started work on the JamBoxx after that. David has worked as an attorney with the New York State office of Court administration. For more details: jamboxx.com

Justin Yang is a composer/improviser/theorist/technologist. His work and research focus on system based models of composition, employing technology to create multi-participatory works which explore issues of ensemble improvisation, real-time and distributed scoring, multi-nodal collaboration, and animated and graphic notation.

Charles Zotique is a composer, teacher, and PhD candidate based in New York and the Berkshires. His music has been performed in four countries and across three continents. Recent commissions include: Exponential Ensemble at the DiMenna Center, NYC Composers Collective at Flushing Town Hall, TreasureHouse Chorale, and the Rhode Island College Orchestra.

