

**SATURDAY, 16 JUNE, 2012**

**STUDENT CONSTORTIUM THINKTANK  
School of Psychology, J.S. Coon Building, Room 150**

**Welcome, Introductions, & Overview of Procedure (8:00am)**

*Terri Bonebright*

**Morning Presentations & Discussions (8:30am – 12:00pm)**

VISUAL AND AUDITORY REPRESENTATIONS OF EARTHQUAKE INTERACTIONS

*Chastity Aiken*

SPATIAL AUDIO AND THE ALLOSPHERE

*Ryan McGee*

CLIMATE VARIATIONS: SOLAR INSOLATION, ECOLOGICAL ABUNDANCE AND STABLE ISOTOPES

*Jay (Danny) Goddard*

**Coffee Break (10:00am – 10:30am)**

SYSSON: SONIFYING CLIMATE DATA

*Visda Goudarzi*

IN-VEHICLE ASSISTIVE TECHNOLOGY (IVAT)

*Thomas Gable*

ASSESSMENT OF SPATIAL AUDIO INTERFACES FOR BLIND AND LOW VISION USERS

*Shreyans Jain*

**Lunch & Career Mentoring Session (12:00 – 1:30pm)**

This will be a working lunch with box lunches provided.

**Afternoon Presentations & Discussions (1:30pm – 4:30pm)**

HEAD-RELATED TRANSFER FUNCTION DATABASE MATCHING, BASED ON SPARSE IMPULSE RESPONSE MEASUREMENTS

*Areti Andreopoulou*

INCORPORATING MUSIC INTO TECHNOLOGICAL INTERFACES

*Anna Bramwell-Dicks*

RESONANT SIGNATURES OF ARCHITECTURE: THE VISUAL AND AURAL REPRESENTATION OF SPATIAL-TEMPORAL RELATIONSHIPS OF PEDRESTRIANS

*Vinh Nguyen*

**Coffee Break (3:00pm – 3:30pm)**

DISTINCT ALERT SETS

*Christian Gonzalez*

ACCELERATED SPEECH

*Paul Ritchey*

**SUNDAY, 17 JUNE 2012**

**School of Psychology, J.S. Coon Building  
654 Cherry Street  
Atlanta, GA 30332**

**Morning Workshops (9:30a – 12:30p)**

**J.S. Coon Room 248**

SONIFICATION AND AUDITORY DISPLAY USING ChuckK, MiniAudicle, and STK  
*Perry R. Cook*

**J.S. Coon Room G48**

INFORMATION RESEARCH METHODS FOR EVALUATING AUDITORY DISPLAYS  
*Terri L. Bonebright & Myounghoon "Philart" Jeon*

**Afternoon Workshops (2:00 – 5:00p)**

**J.S. Coon Room 248**

SONIFICATION AND AUDITORY DISPLAYS USING MATLAB  
*Tae Hong Park*

**J.S. Coon Room 139**

ROUND TABLE: PRINCIPLES OF ORGANIZATION FOR EFFECTIVE AUDITORY DISPLAY  
*Derek Brock & Camille Peres*

**MONDAY, 18 JUNE 2012**

**Academy of Medicine**

**Sonification Contest Installation (Parlor Room, 8:00a – 7:00p)**

SONIC WINDOW #1

*Andrea Vigani*

On view throughout the day in the lounge on the north side of the building.

**Registration (Lobby, 8:00 – 9:00a)**

**Opening Remarks (Theater, 9:00 – 9:15a)**

*Bruce N. Walker*

**Papers I: Spatial Audio (Theater, 9:15 – 10:35a)**

*Chair: Milena Droumeva*

AN ALTERNATIVE IMPLEMENTATION OF VBAP WITH GRAPHICAL INTERFACE FOR SOUND MOTION DESIGN

*Hongchan Choi*

SOUND EFFECT METAPHORS FOR NEAR FIELD DISTANCE SONIFICATION

*Gaëtan Parseihian, Brian FG Katz, & Simon Conan*

SOUND FOR 3D CINEMA AND THE SENSE OF PRESENCE

*Cédric R. André, Jean-Jacques Embrechts, Jacques G. Verly, Marc Rébillat, & Brian F. G. Katz*

EXPLORING 3D AUDIO FOR BRAIN SONIFICATION

*Timothy Schmele & Imanol Gomez*

**Coffee Break (Lobby, 10:35 – 11:00a)**

**Keynote Address (Theater, 11:00a – 12:00p)**

*Elizabeth Mynatt*

Professor of Interactive Computing, Executive Director of Georgia Tech's Institute for People and Technology.

REFLECTIONS OF A GIRL AUDIO GEEK

In 1992, I had the tremendous opportunity to participate in the first gathering of the International Community for Auditory Display. Thirty-five researchers engaged in focused discussions and communal laughter as we sought to build a community dedicated to understanding the experience of sound. The community was a good fit for me as the experience of sound had been a great teacher, informing my research and my life as a researcher. By working with sound, and by working with people who's dominant experience of the world was sound, I gained an early appreciation for sound as the core of experience design. Through sound we tell stories, we convey emotion and we convey the fundamental qualities of places. These lessons have journeyed with me over the past 20 years and have informed much more than the design of auditory displays. Sound is a great teacher and I have been privileged to be its student.

**Lunch (Magnolia Room, 12:00 – 1:30p)**

**Papers II: Theory and Methods (Theater, 1:30 – 2:50p)**

**Chair: Derek Brock**

TRAINED EARS AND CORRELATION COEFFICIENTS: AN STS PERSPECTIVE ON SONIFICATION

*Alexandra Supper*

NON-SPEECH AUDIO-SEMIOTICS: A REVIEW AND REVISION OF AUDITORY ICON AND EARCON THEORY

*David Oswald*

REVISITING PULSE RATE, FREQUENCY AND PERCEIVED URGENCY: HAVE RELATIONSHIPS CHANGED AND WHY?

*Christian Gonzalez, Bridget A. Lewis, & Carryl L. Baldwin*

EVERYDAY LISTENING TO AUDITORY DISPLAYS: LESSONS FROM ACOUSTIC ECOLOGY

*Milena Droumeva & Iain MacGregor*

**Coffee break (Lobby, 2:50 – 3:15p)**

**Extended Abstracts I (Theater, 3:15 – 4:45p)**

**Chair: Camille Peres**

EEG SONIFICATION FOR EPILEPSY SURGERY: A CLINICAL WORK-IN PROGRESS

*Cole A Giller, Anthony M Murro, Yong Park, Suzanne Strickland, & Joseph R Smith*

NEW DIRECTIONS FOR SONIFICATION OF EXPRESSIVE MOVEMENT IN MUSIC

*R. Michael Winters & Marcelo M. Wanderley*

SYSSON - A SYSTEMATIC PROCEDURE TO DEVELOP SONIFICATIONS

*Katharina Vogt, Visda Goudarzi, & Robert Holdrich*

WHO'S SONIFYING DATA AND HOW ARE THEY DOING IT? A COMPARISON OF ICAD AND OTHER VENUES SINCE 2009

*Nick Bearman & Ethan Brown*

A SONIFICATION PROPOSAL FOR SAFE TRAVELS OF BLIND PEOPLE

*Pablo Revuelta Sanz, Belen Ruiz Mezcuca, & Jose M. Sanchez Pena*

INTENTION – INTERACTIVE NETWORK SONIFICATION

*Rudi Giot & Yohan Courbe*

INTERFACING THE EARTH

*Peter Beyls*

**Opening Cocktail Reception (5:00 – 7:00p)**

**Marlowe's Tavern (across the street from the Academy of Medicine)**

**TUESDAY, 19 JUNE, 2012**  
**Academy of Medicine**

**Sonification Contest Installation (Parlor Room, 8:00a – 9:30p)**

AFFECTED STATES

*Kingsley Ash*

On view throughout the day in the lounge on the north side of the building.

**Registration (Lobby, 8:00 – 9:00a)**

**Keynote Address (Theater, 9:00 – 10:15a)**

*Jonathan Berger*

Denning Provostial Professor in Music, The Center for Computer Research in Music and Acoustics (CCRMA), Stanford University

SURPRISE IN SONIFICATION AND SONIFYING SURPRISE

Along with timbre, perhaps the most critical components of effective auditory display is the use (or abuse) of expectation realization and violation. Yet, remarkably, (again, along with timbre), to date there exists neither quantitative metric nor qualitative descriptors for expectation. In this talk I will present the formulation and control of expectation as a principle attribute in the creation and experience of both music and auditory display.

**Coffee break: (Lobby, 10:15 – 10:45a)**

**Posters I: (Crystal Dining Room, 10:45a – 12:00p)**

DEMONSTRATION OF AN OUTDOOR AUDIO SHOOTING GALLERY

*Mark Anders Ericson & Matthew N. Vella*

WERE THOSE COCONUTS OR HORSE HOOFS? VISUAL CONTEXT EFFECTS ON IDENTIFICATION AND PERCEIVED VERACITY OF EVERYDAY SOUNDS

*Terri L. Bonebright*

CORRELATIONS AND SCATTERPLOTS: A COMPARISON OF AUDITORY AND VISUAL MODES OF LEARNING AND TESTING

*Michael A. Nees*

SONIFICATION AS A SOCIAL RIGHT IMPLEMENTATION

*Pablo Revuelta Sanz, Belen Ruiz Mezcuca, & Jose M. Sanchez Pena*

PHYSICAL NAVIGATION OF VISUAL TIMBRE SPACES WITH TIMBREID AND DILIB

*William Brent*

SPATIALIZED AUDIO FOR MIXED REALITY THEATER: THE EGYPTIAN ORACLE

*Ajayan Nambiar & Jeffrey Jacobson*

**Lunch (Magnolia Room, 12:00 – 1:30p)**

**Papers III: Sound and Movement (Theater, 1:30 – 3:20p)**

*Chair: Myoungsoon Jeon*

SONIFICATION OF PRESSURE CHANGES IN SWIMMING FOR ANALYSIS AND OPTIMIZATION

*Thomas Hermann, Bodo Ungerechts, Huub Toussaint, & Marius Grote*

MULTI-DIMENSIONAL SYNCHRONIZATION FOR RHYTHMIC SONIFICATION

*Jeffrey Boyd & Andrew Godbout*

INTUITIVE AND INTERACTIVE MOVEMENT SONIFICATION ON A HETEROGENEOUS RISC / DSP PLATFORM

*Hans-Peter Brückner, Matthis Wielage & Holger Blume*

10 MINUTE BREAK

ACOUSTIC FEEDBACK TRAINING IN ADAPTIVE ROWING

*Nina Schaffert & Klaus Mattes*

PERCEPTUAL EFFECTS OF AUDITORY INFORMATION ABOUT OWN AND OTHER MOVEMENTS

*Gerd Schmitz & Alfred O. Effenberg*

**Coffee break (Lobby, 3:20 – 3:45p)**

**Extended Abstracts II (Theater, 3:45 – 5:00p)**

***Chair: Nina Schaffert***

IMPROVING THE EFICACY OF AUDITORY ALARMS IN MEDICAL DEVICES BY EXPLORING THE EFFECT OF AMPLITUDE ENVELOPE ON LEARNING AND RETENTION

*Jessica Gillard & Michael Schutz*

EFFECTS OF PLEASANT AND UNPLEASANT AUDITORY MOOD INDUCTION ON THE PERFORMANCE AND IN BRAIN ACTIVITY IN COGNITIVE TASKS

*Matti Grohn, Lauri Ahonen, & Minna Huotilainen*

SONIFICATION FOR THE INSTALLATION DRAWN TOGETHER

*Mason Bretan, Gil Weinberg, & Jason Freeman*

AQUARIUM FUGUE: INTERACTIVE SONIFICATION FOR CHILDREN AND VISUALLY IMPAIRED AUDIENCE IN INFORMAL LEARNING ENVIRONMENTS

*Myounghoon Jeon, Riley J. Winton, Jung-Bin Yim, Carrie M. Bruce, & Bruce N. Walker*

BEYOND VISUALIZATION: ON USING SONIFICATION METHODS TO MAKE BUSINESS PROCESSES MORE ACCESSIBLE TO USERS

*Tobias Hildebrandt, Simone Kriglstein & Stefanie Rinderle-Ma*

SHAKING UP EARTH SCIENCE: VISUAL AND AUDITORY REPRESENTATIONS OF EARTHQUAKE INTERACTIONS

*Chastity Aiken, Zhigang Peng, David Simpson, Andy Michael, Debi Kilb, Bogdan Enescu, & David Shelly*

**Sonification Contest Finalist Presentations**

**(Theater, 4:45 – 5:00p)**

***Chair: Jason Freeman***

CHIRPING STARS

*Katharina Vogt, Visda Goudarzi, & Robert Holdrich*

THE SOUNDS OF THE DISCUSSION OF SOUNDS

*Matt Bethancourt*

**Evening Concert with Sonic Generator  
Academy of Medicine  
(Theater, 8:00 – 9:30p)**

VIOLA ELEGY, for viola and tape  
*Charles Dodge*

CHIRPING STARS, for tape  
*Katharina Vogt , Visda Goudarzi, & Robert Holdrich*

PIANO PHASE, version for two marimbas  
*Steve Reich*

DOUBLES, for string quartet  
*Jonathan Berger*

**WEDNESDAY, 20 JUNE, 2012**  
**Academy of Medicine**

**Sonification Contest Installation (Parlor Room, 8:30a – 12:00p)**

THE SOUNDS OF THE DISCUSSION OF SOUNDS  
*Matt Bethancourt*

On view throughout the day in the lounge on the north side of the building.

**Registration (Lobby, 8:30 – 9:00a)**

**Papers IV: Sonification (Theater, 9:00 – 10:20a)**  
***Chair: Matti Grohn***

HEARING NANO-STRUCTURES: A CASE STUDY IN TIMBRAL SONIFICATION  
*Margaret Schedel & Kevin G. Yager*

SONIFICATION OF A REAL-TIME PHYSICS SIMULATION WITHIN A VIRTUAL ENVIRONMENT  
*Rhys Perkins*

CircoSonic: A SONIFICATION OF CIRCOS, A CIRCULAR GRAPH OF TABLE DATA  
*Vinh Xuan Nguyen*

TWEETSCAPES - REAL-TIME SONIFICATION OF TWITTER DATA STREAMS FOR RADIO BROADCASTING  
*Thomas Hermann, Anselm Venezian Nehls, Florian Eitel, Tarik Barri, & Marcus Gammel*

**Coffee break: (Lobby, 10:20 – 10:45a)**

**Papers V: Sonification (Theater, 10:45a – 12:05p)**  
***Chair: Thomas Hermann***

A MODULAR COMPUTER VISION SONIFICATION MODEL FOR THE VISUALLY IMPAIRED  
*Michael Banf & Volker Blanz*

SONIFYING ECOG SEIZURE DATA WITH OVERTONE MAPPING: A STRATEGY FOR CREATING AUDITORY GESTALT FROM CORRELATED MULTICHANNEL DATA  
*Hiroko Terasawa, Chris Chafe, & Josef Parvizi*

RECOGNITION OF AUDIFIED DATA IN UNTRAINED LISTENERS  
*Robert Lewis Alexander II, Sile O'Modhrain, Jason Gilbert, Thomas Zurbuchen, & Mary Simoni*

VOICE OF SISYPHUS: AN IMAGE SONIFICATION MULTIMEDIA INSTALLATION  
*Ryan Michael McGee*

**ICAD Board Members' Lunch (2:05 – 1:30p)**

**OPEN AFTERNOON**

**EVENING BANQUET**  
**Georgia Aquarium**  
**(7:00-11:00p)**

**Shuttles available from the Academy of Medicine to the Georgia Aquarium from 4:00-5:30p and returning to the Academy of Medicine from the Aquarium from 9:30-11p**



**THURSDAY, 21 JUNE, 2012**  
**Academy of Medicine**

**Sonification Contest Installation (Parlor Room, 8:45a – 4:00p)**

THE SOUNDS OF THE DISCUSSION OF SOUNDS  
*Matt Bethancourt*

On view throughout the day in the lounge on the north side of the building.

**Registration (Lobby, 8:45 – 9:00a)**

**Posters II (Crystal Dining Room, 9:00 – 10:15a)**

ACOUSTIC INTERFACE FOR TREMOR ANALYSIS  
*David Pirrò, Alexander Wankhammer, Petra Schwingenschuh, Robert Höldrich, & Alois Sontacchi*

CAPTURING AUDIENCE EXPERIENCE VIA MOBILE BIOMETRICS  
*Yuan Fi Fan & Rene Weber*

A SONIFICATION OF KEPLER SPACE TELESCOPE STAR DATA  
*Riley Winton, Thomas M. Gable, Jonathan Schuett, & Bruce N. Walker*

EVALUATION OF A MATLAB-BASED VIRTUAL AUDIO SIMULATOR WITH HRTF-SYNTHESIS AND HEADPHONE EQUALIZATION  
*György Wersényi*

**Coffee break: (Lobby, 10:15 – 10:45a)**

**Student Thinktank Poster Session (Crystal Dining Room, 10:45a – 12:00p)**

*Posters from participants in the student Thinktank*

**Lunch (Magnolia Room, 12:00 – 1:30p)**

**Papers VI: Interfaces and Attention (Theater, 1:30 – 3:10p)**  
*Chair: Carrie Bruce*

THE SOUND OF MUSICONS: INVESTIGATING THE DESIGN OF MUSICALLY DERIVED AUDIO CUES  
*Ross McLachlan, Marilyn McGee-Lennon, Stephen Brewster*

AUDITORY SUPPORT FOR SITUATION AWARENESS IN VIDEO SURVEILLANCE  
*Benjamin Höferlin, Markus Höferlin, Boris Goloubets, Gunther Heidemann, & Daniel Weiskopf*

CROSS-MODAL COLLABORATIVE INTERACTION BETWEEN VISUALLY-IMPAIRED AND SIGHTED USERS IN THE WORKPLACE  
*Oussama Metatla, Nick Bryan-Kinns, Tony Stockman, & Fiore Martin*

EVALUATING LISTENERS' ATTENTION TO AND COMPREHENSION OF SERIALY INTERLEAVED, RATE-ACCELERATED SPEECH  
*Derek Brock, S. Camille Peres, & Brian McClimens*

A PERSPECTIVE ON THE LIMITED POTENTIAL FOR SIMULTANEITY IN AUDITORY DISPLAY  
*Joachim Gossman*

**Coffee break (Lobby, 3:10 – 3:30p)**

**Closing Ceremony (Theater, 3:30 – 4:00p)**

**ICAD 2013 Announcement, Thinktank Report, Awards for Best Contributions, Sonification Contest  
Winner Announcement, Open Mic**