

## **iARTA Symposium / Feb. 13, 1:00-5:30pm**

**UNT College of Music - Rm. 1001 - MEIT**

### **1:00 PM**

#### **Introduction**

David Stout : iARTA Professor - Music Composition / Studio Art – New Media

### **1:15 PM**

#### **From Here to Here: Spatial Negotiations Between the Live and Virtual Body**

Dr. Mary Lynn Babcock : Associate Professor – Dept. of Dance and Theatre

### **1:45 PM**

#### **Physical Modeling and Multi-Channel Audio DSP Tools**

Dr. Jon Nelson : Professor - Music Composition

### **2:15 PM**

#### **Music, Electronic Art, and Lacanian Psychoanalysis**

Dr. David Schwarz : Associate Professor - Music Theory

### **2:45 PM**

#### **Trending Virtual Reality Technologies**

Stephen Lucas : PhD Candidate - Music Composition

### **3:15 PM**

#### **Retro-Futuristic Technology – modular video synthesis at Denton’s LZX Industries**

Liz Larsen : UNT staff media programmer & CEO / CCO of LZX Industries

### **3:45 PM**

#### **MaterialsSoundMusic – The visualization & sonification of elemental interactions and material properties**

Dr. Marco Buongiorno Nardelli : Distinguished Research Professor - Physics

### **4:15 PM**

#### **Techniques and Technologies in Sense – compositional methods for work involving sonic immersion and development of a six-channel tactile transducers system**

Dr. Panayiotis Kokoras : Assistant Professor - Music Composition

### **4:45 PM**

#### **Development of the Mi World PCS portable server, personal cloud, and streaming media mini computer**

Dr. Shengli Fu : Assistant Professor - Electrical Engineering

Dan Talbott : Operations at Myth Innovations, Inc.

## **From Here to Here: Spatial Negotiations Between the Live and Virtual Body**

Mary Lynn Babcock – College of Arts & Sciences, Department of Dance and Theatre

In dance there is a knowing, a knowing that places emphasis on the immediacy of the embodied experience through sensory engagement of self and other. The body is central to this knowing because it is through the body, the self, that we understand body-oriented experiences, or sensory engagement, which includes modes of attending to self and other through kinesthetic, imaginative, emotional, intuitive, as well as cognitive sensibilities. This type of knowing is inherent in the dance practice itself, and it tied intricately to knowing of the body-in-space and its possible elaborations that exist through body-in-space negotiations. Within the dance-making process and the ultimate performance, knowing or understanding comes not so much from a narrative factual point of view, rather, knowing comes from ‘at-one-ment,” the alterity of self, where ‘I’ experience the ‘other’ as another myself. Further, audiences can feel the movements and connect not only emotionally to the dancers moving, but also through how they connect with the space that dance created. This is perception and it is a practice.

In this presentation I explore the concept of “liveness” in performance with digital media. Choreography and technology integrations share a dialectic that both alters and is altered by each other) in the end process creating a poetic otherness to the performance. We will look at the delicate existence between two spatial realms that lie on a continuum of real time as contextualized in real time live movement, and other-more seemingly separated space as contextualized through virtual space.

In order to investigate this relationship more fully two dance works are briefly explored. Human Kind (2012) and Shade (2013) giving a practical look at the theory of embodied knowing utilized in all my research. We will conclude with live performance of Bloom, a digital media dance, choreographed and performed by two undergraduates dance majors.

1. The concept of ‘other’ refers to other dancers, audience members, places/space, or experiencing self and an-other.

---

## **Physical Modeling and Multi-Channel Audio DSP Tools**

Jon Nelson - College of Music, Division of Composition Studies

This talk will provide a quick survey of recent tools I have developed in MaxMSP for audio synthesis and digital signal processing. In particular, the talk will focus on tools I have developed recently for the use in developing audio for an 8-channel environment. These tools include 8-channel granular synthesis, 8-channel panning and mixing tools, an 8-channel spectral panner, an 8-channel physical model of a mesh for use as a metallic synthesizer or a plate reverb/effects module, and other multi-channel physical models of instruments based on waveguides.

---

## **Music, Electronic Art, and Lacanian Psychoanalysis**

David Schwarz - College of Music / Theory

In my presentation for the iARTA symposium, I will provide an overview of my work in music, electronic art, and psychoanalysis. I will suggest in brief terms that shifts in the nature of the early 21<sup>st</sup> Century subject require models of subjectivity that open up Cartesian categories (with each word of "I think therefore I am" becoming porous). I will suggest that Lacanian psychoanalysis provides a well-known, well-established, and powerful approach to an approach to porous subjectivity. Electronic art provides an objective correlate for this approach to the subject as well, with its fluid, kinetic dimension, its at times implicit, at times explicit invitation to collaboration, and its fluid boundaries between information and the body. I will focus on one work of art to illustrate these points—Claudia Hart's "Caress" (2011).

---

## **Trending Virtual Reality Technologies**

Stephen Lucas – College of Music, Division of Composition Studies PhD candidate

Virtual reality (VR) has been a long-sought-after media for immersive expression. Only recently, with the availability of consumer-level, head-mounted-displays and motion tracking, has the VR community developed to be easily accessible to artists. This presentation will focus on some of the recent trends in VR technology, along with pros and cons of various hardware and design aesthetics.

---

## **Retro-Futuristic Technology – modular video synthesis at Denton’s LZX Industries**

Liz Larson - Multimedia Programmer at The UNT Center for Learning Enhancement, Assessment, and Redesign (CLEAR)

"A growing community of international artists are exploring the possibilities of pre-computer era analogue video art technology. LZX Industries is a small business split between Denton, TX and Sydney, Australia. They have spent the past few years designing and manufacturing analogue video synthesis instruments for the analogue video art community. In this presentation, LZX Industries owner and design engineer Liz Larsen will discuss her rationale for exploring retro-futuristic technology, the role of the toolmaker in a niche artistic community, and give a demonstration of her devices."

---

## **MaterialsSoundMusic**

Marco Buongiorno Nardelli – College of Arts and Sciences, Department of Physics and Department of Chemistry

MaterialsSoundMusic is a large-scale collaboration focused on the artistic reinterpretation and remix of materials property data as expressive media. It can be envisioned as: a virtual environment to experience the hidden reality and representation of materials structures and engage the public in a multi-sensory exploration; large scale multimedia installations of materials structures for physical exploration and interactive performance space (sculpture/video/sound/music); and source of musical raw elements for further artistic elaboration

## **Techniques and Technologies in Sense**

Panayiotis Kokoras - College of Music, Division of Composition Studies

Brief Abstract :

This presentation provides a short overview of the technologies involved, the composition methods and studio techniques developed to implement this project. *Sense* for fourteen discrete channels includes a surround 5.1-sound composition, the development of a six-channel tactile transducers system and the demonstration of the compositional methodology used in the piece. The purpose of the project is to create a holistic listening experience where the audible listening experience is combined with the tactile experiences ultra and infrasound.

---

### **Mi World™ PCS**

Dan Talbott - Operations, Myth Innovations, Inc.

Shengli Fu – UNT Electrical Engineering

Mi World™ PCS is a portable computing system that acts as a secure, powerful server, personal cloud, and streaming media solution with a 30-hour battery that wirelessly connects your devices with or without the need for the Internet—all in one device that fits in the palm of your hand.

Mi World™ PCS is “reconstructive” technology that gives new, enhanced life to the computing world by augmenting and extending the life and potential uses of our computers, tablets, smartphones, wearable technology, and other mobile devices.

Mi World™ PCS is capable of being a personal companion to the individual user, applying itself to and impacting every aspect of a person’s everyday life. It is designed to travel with you wherever you go – from home to work to on-the-go. Whether traveling in the car or on a plane, Mi World™ PCS allows you and your family to seamlessly control, share, and access your devices and their media and applications as if you’ve never left your home or office.

Mi World™ PCS also significantly impacts the corporate world. It revolutionizes corporate infrastructure, presentations, meetings, and workflow and empowers a secure “bring your own device” (BYOD) ecosystem. In addition, Mi World™ PCS provides positive global and community impact—the potential uses in natural disasters and emergency response systems have been a topic of conversation for deployment in various spectrums.