institut für elektronische musik und akustik

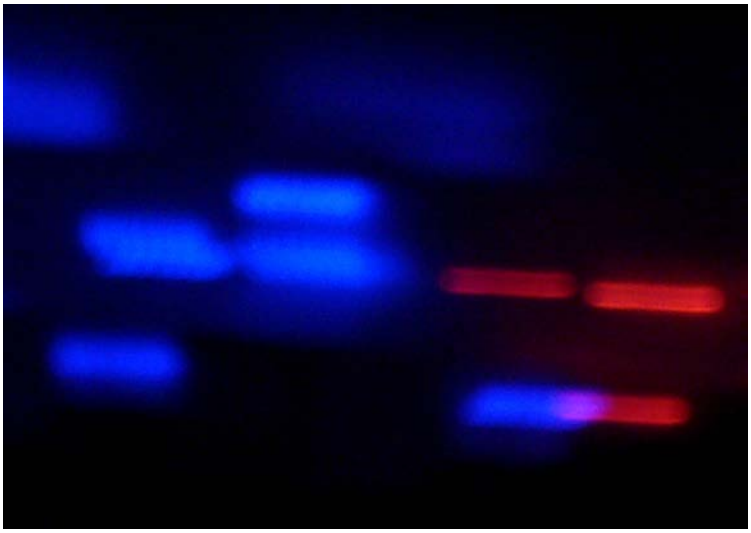
PURE Ambisonics

Concert A – 19:30

Friday 18. Sept. MUMUTH, Ligeti-Saal
at University of Music and Performing Arts Graz

The "PURE Ambisonics Concert" features Ambisonical music as an art form, where an experienced musical sound field is placed in the main focus. Historically you could interpret the Ambisonic music experience being in line with absolute music at the mid of the 19th century and pure electro-acoustic works performed in the late 1990s. Like absolute music (or abstract music), Ambisonics pieces need not be explicitly "about" anything, and in contrast to program music, they may also be non-representational. Rather than playing with different loudspeaker characteristics and their spatial distribution, as e.g. in acousmatic music or loudspeaker theaters, the Ambisonic technology allows to feature and musically compose and shape the contents of the presented sound field as a "Virtual Auditory Environment" – AVE in the meaning Jens Blauert's stated this in the beginning of the 21th century.

The Well Tempered Chaos
Daniel Courville 14:05



The Well-Tempered Chaos is an experiment on algorithmic twelve-tone music where random number generators control everything that can be heard: the timbre of the sounds obtained by additive synthesis, the notes durations and sequences, and their spatialization in full sphere 3rd order B-Format. All in all, more than a hundred random number generators are used and the resulting music is different at every performance. Visual programming software SonicBirth was used to design the composition building blocks (sequencers, synthesizers, and spatializers) and patching software Plogue Bidule is used for the computer's live performance by combining the building blocks through interconnections of streaming audio signal and control data.

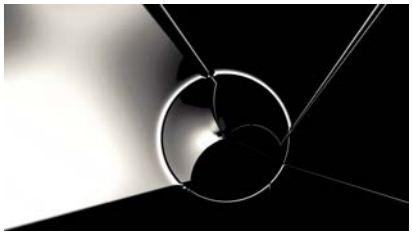
Space S[acred|ecular]
Fernando Lopez-Lezcano 9:00

Hagia Sophia in Istambul, Turkey, was once a cathedral, a mosque and is now a secular museum. Its main dome rises up to a height of 182 ft and the building is one of the greatest surviving examples of Byzantine architecture. The Icons of Sound group at CCRMA, Stanford University and the Arts and Art History Department at Stanford sought to recreate its acoustics digitally so that music created centuries ago for that space could be "heard" again as intended (at least virtually). The culmination of the project was a Stanford Live concert in the 2013 opening season of the Bing Concert Hall at Stanford ("From Constantinople to California"), in which the Cappella Romana singers, a group specializing in byzantine chanting, performed live within a computer simulated 3D rendering of the Hagia Sophia acoustics, inside Bing itself.

moer
daniel lercher 6:40

The piece starts with a soft 'drone' that spreads over time more and more There are also very short granular particles that are projected on a random algorithm to the spatial planes. In the second part of the piece “bird recordings” slightly out of tune with each other by means of a granular process are layered. This creates a kind of 'Shepard scale' and thus the illusion of deeper expectant birdsong. A transformed recording of a passing train start a transition to purely electronically-generated material.

Geometric Love
Michael Brown 3:53



The piece is an exploration of musical synchronisation to abstract image animation and involves sonic materials drawn from largely self-crafted Sources. The work was conceived drawing narrative designs from text and video material. The image is a key frame from the animations. I am fundamentally interested in the artistic application of technology particularly withreference to multimedia technologies and surround sound, utilise the ambisonics encoder/decoder plugins crafted by my colleague Dr Bruce Wiggins.

Coloured Dots and The Voids Inbetween
Jan Jacob Hofmann 8:05

In the piece 'Coloured Dots And The Voids In Between' spatial textures of dot-like sounds occur. The fields created by that expand and evolve in space and time. Important are not only the events of sounds themselves but also the the spaces inbetween these, which expand in different dimensions spatially and temporally, overlap and thus create the actual space. All sounds have been generated using solely the 'pluck'-opcode, which simulates the sound of a plucked string. The piece is spatially encoded in 3rd order Ambisonic and has been created with the program 'Csound' along with Steven Yi's environment for composition 'blue'.

Satellite
Takuto Fukuda JA 5:55

This piece was composed for octaphonic speaker system and realized at The Royal Conservatory in The Hague in The Netherlands in 2010. It can be interpreted as a representation of trajectory of a falling satellite. A narrative is that the satellite on orbit gradually goes out of it and falls into the earth because of gravitation. So, time structure is that intervals between sound events, which has attacks and movements of crescendo - decrescendo and accelerando - ritardando combined, become shorter and shorter towards a crashed point.

Biographies

Daniel Courville

has been teaching audio & computers at UQAM's Media School since 1990. He's a freelance classical music record producer and engineer. He has been interested in Ambisonics since 1988 and he's now developing his own audio plug-ins for Ambisonic productions. He's a SonicBirth, Plogue Bidule, and Nuendo user.
www.ambisonicstudio.com | www.courville.uqam.ca

Fernando Lopez-Lezcano

enjoys building things, fixing them when they don't work, and improving them even if they seem to work just fine. The scope of the word "things" is very wide, and includes computer hardware and software, controllers, music composition, performance and sound. His music blurs the line between technology and art, and is as much about form and sound processing, synthesis and spatialization, as about algorithms and custom software he writes for each piece. He has been working in multichannel sound and diffusion techniques for a long time, and can hack Linux for a living. At CCRMA, Stanford University since 1993, he combines his backgrounds in music (piano and composition), electronic engineering and programming with his love of teaching and music composition and performance.

Daniel Lercher

Born in Judenburg in 1983, Daniel Lercher currently lives and works as a musician, composer and media artist in Vienna. A graduate of the course in computer music and electronic media at the Vienna University of Music and Performing Arts, he is active in Vienna's electronica scene and a member of the electroacoustic music platform Velak. Lercher's work focuses on electroacoustic composition/improvisation, live electronics, field recordings, installations, radio art, and video. His most recent releases include *nagara* (2012), *LSD dehypnotisation* (2013), and *baigona* (2013), which is his contribution to the vinyl postcard series released by Early Morning Melody.

Michael Brown BSc(Hons) MA PGCE AMusLCM FHEA

Michael is the Programme Leader for the BA(Hons) Popular Music with Music Technology degree in the College of Arts, at the University of Derby, UK. He holds diplomas in both Art and Music, a BSc(Hons) degree in Software Engineering, Mathematics and Music, and a Masters degree in Contemporary Composition, which combine to serve his interest in computer creativity. He is a principal researcher with over twenty-five years of teaching experience, an active artist, composer and musician. As well as maintaining his professional role, he is a member of the American Creativity Association and has presented his research in multimodal creativity internationally.

Jan Jacob Hofmann

was born 1966 in Duesseldorf, Germany. Diploma, branch of architecture at the Fachhochschule Frankfurt/M, University Of Applied Sciences in 1995, worked then at an office for architecture. Entered the class of Peter Cook and Enric Miralles at the Staedelschule Art School Frankfurt/M in 1995, a postgraduate class of conceptual design and architecture. Diploma at the Staedelschule in 1997. Works as a composer, photographer and architect since.

Takuto Fukuda

(b.1984/Japan) is a composer and a sound artist woking in the field of electroacoustic and mixed music.
He received his BA(Sonology/2008) from Kunitachi College of Music in Japan and his MA(Sonology/ 2011) from The Royal Conservatory in The Hague in The Netherlands. He has studied under Takayuki Rai, Shintaro Imai, Cort Lippe, Johan van Kreij, Naoko Hishinuma and Masakazu Natsuda. He has been currently studying at IEM - Institute of Electronic Music and Acoustics at University of Music and Performing Arts with Marko Ciciliani.