

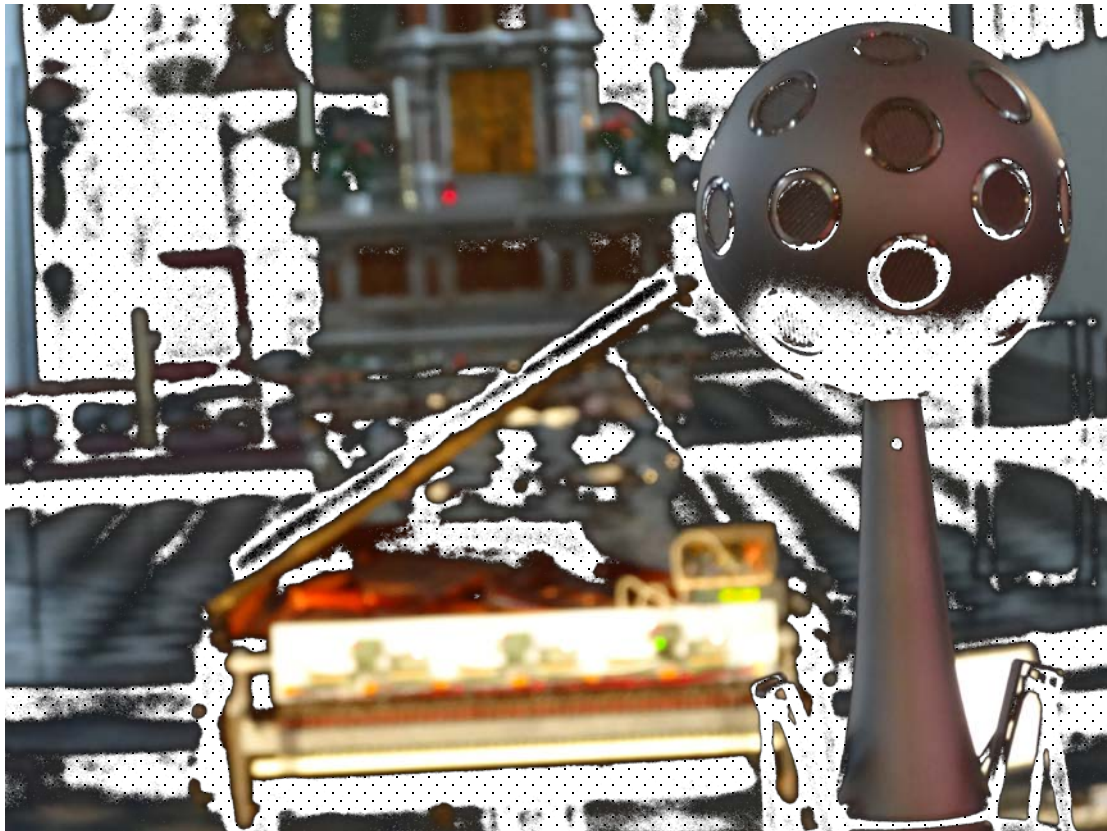
institut für elektronische musik und akustik



# PURE Ambisonics

**Concert C – 21:30**

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

### **A Path into Rainforest (2011) - 5:22** **David Monacchi**

The original ambisonic data were carried out during a field recording campaign in 2008 into the Dzanga-Sangha dense forest reserve (Central African Republic), where one of the highest biodiversity rate in the African equatorial forest is recognized to be present. The habitats chosen for the piece are seasonal swamps, high canopy forest and saline (Bai) where elephants use to come daily to gather minerals at the sandy



bottom of the stream. The composition is built with subtle elaborations of field recordings, observing the eco-acoustic composition principles. All sounds heard originate from the habitats' configurations. The first and last sections are unaltered single recordings, showing the fragile equilibrium of the ecosystem and the vitality of a group of *Lophocebus albigena* monkeys, eating and throwing fruits from above. In the central part of the composition, several instances of a swamp habitat are superimposed in a dramatic climax. The piece represents the most surreal and frightening aspects of the African dense forest and its diversity, where sound masses of insects and amphibians alternate with birds, monkeys passages, rare large mammals vocalizations and thunders, retaining the feeling of the three-dimensional original reverberation.

**'Topology Chamber 2' 13:24**  
**Natasha Barett**

'Topology Chamber 2' is an acousmatic composition in high-order ambisonics (5th order 3D) created from the sonification of spatial performance and instrument gestures. 3D motion data is captured from the recordings of a balloon and a cymbal being explored for their sounding characters. The motion and sound are analysed and segmented into micro- and meso-scale gestural objects, which are in turn 'recomposed' into larger datasets by way of coarticulation and concatenation. These new gestural datasets, idiomatic of the original performance, are sonified using a custom made application where you can explore the spatial gestural image from it's 'inside', while maintaining realistic parallax and parameter scaling. The sonifications are then used as the building blocks for a composition exploring 'tangible' acousmatic sound and real gestural behaviour, placing the listener alongside an invisible body-centred spatial expression where tensions emerge from the pull between known gestural archetypes and acousmatic sound.



**Water Imagination 10:19**  
**Li Jia**

This piece is inspired by the sound of water. The artist hears and records many sounds of water and puts them in a sound field through ambisonics. So this piece consists of sounds from water and its variations, reflecting an imagination of water. The artist also wants to show the concept of environmental protection. Because some areas in the world are encountering drought, such as Yun Nan in China, Palo Alto in the USA. The piece begins from drops of water and ends to that. In the processing, there are many variations coming from water imagination, even the rain of cats and dogs.



**Ricochet 11:07**  
**Enda Bates**



The primary source material of this multichannel piece was created using a table-top electric guitar. This guitar was fitted with a third bridge and two polyphonic pickups mounted at the bridge and neck (i.e. on both sides of the additional, third bridge) resulting in ten output channels of audio in total (6 from the bridge and 4 from the neck). A wide variety of material was first produced using a various extended

techniques such as violin bows, electric drills, drum sticks, metal slides, etc. These 10-channel recordings then provided the primary raw material for the final, 5th-order ambisonic work (using the AmbiX format). The spatialization of each channel is created by mapping the amplitude of each channel to that channels rate of change of horizontal position. In this way, the more dynamic the material, the faster it moves, and so spatial gestures are explicitly connected to the spectromorphological profile of each channel, resulting in a highly complex yet meaningful web of movement. The provided excerpt consists of quite textural material created from largely unprocessed recordings, however, later in the piece more gestural material dominates, combined with increasing amounts of electronic processing, and more extensive movement in both the vertical and horizontal dimensions.

# Biographies

## **David Monacchi**

Monacchi's primary research focus is recording natural sonic environments and untouched ecosystems throughout the world with cutting-edge field recording techniques to create music for sound installations, museums, and experimental and new music concerts. For nearly two decades, he has recorded in Europe, Africa, North and South America, and used the recordings as material for creating eco-acoustic compositions. His honors include the "Erato Farnesina" fellowship for the World Soundscape Project - Vancouver, the "Fulbright" Research for CNMAT at University of California – Berkeley, and prizes from the "Russolo-Pratella" competition (Italy), "Locarno Film Festival" (Switzerland), "Multiple Sound Festival" (Holland) and recognized twice at the "Bourges International Grand Prix of Electroacoustic Music" (France). His music is published by Ants Records, Domani Musica, Coclearia (IT), Wild Sanctuary and EMF Media (USA). Currently he is Professor of Electroacoustic Music at the Conservatory of Music of Foggia, and adjunct professor at the University of Macerata and the Conservatory of Pesaro – Italy.

## **Natasha Barrett (UK / Norway)**

is a composer, performer and researcher in the field of contemporary electroacoustic art music. Her works encompass instrumental and electroacoustic concert composition, multi-media indoor and outdoor events, as well as more diverse forms such as sound-architectural installations and public interactive art. One of her specialities has involved the expression of musical forms through spatialisation, for the past 15 years composing in ambisonics 3D space. She is regularly invited into collaborations with designers and scientists and travels worldwide to present concerts, master classes and seminars. Barrett's works are performed and commissioned throughout the world, receiving numerous prizes, including the Nordic Council Music Prize (2006). For more information: [www.natashabarrett.org](http://www.natashabarrett.org)

## **LI Jia**

is currently a Visiting Scholar at the Stanford University. She is also a Associate Professor of the Shanghai Conservatory of Music.

LI Jia was born in China. She studied composition and electronic-acoustic music and received her doctorate at the Shanghai Conservatory of Music, got her master degree at the Wuhan Conservatory of Music and her bachelor at the Xinghai Conservatory of Music.

LI's music has been performed in North America, Europe and Asian. She has devoted herself to composition of electronic music and traditional music, which has produced many works of unexpected and unusual combinations of materials and media. She has researched in sound synthesizer, sound space and written articles about that.

## **Enda Bates**

is a composer, musician, producer and academic based in Dublin, Ireland.

He is a founder member of the Spatial Music Collective and also regularly writes and performs with the Irish folk-rock band the Spook of the Thirteenth Lock. In 2010 he completed a PhD in music composition at Trinity College Dublin, where he now lectures.