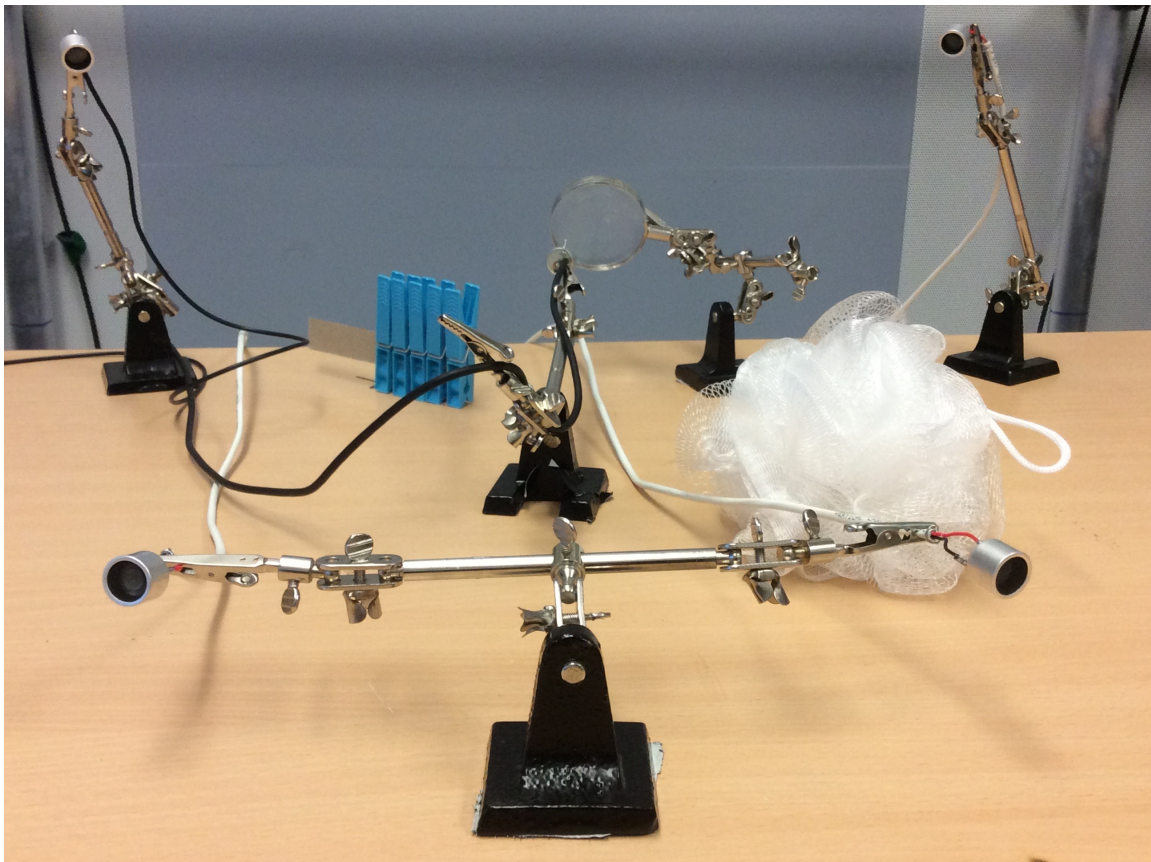


Open CUBE – Algorithms that Matter

„Plausible/Implausible“

New Works by Ron Kuivila -
Solo Live Electronics and Sound Installation



Friday, 26.01.2018, 19h00, IEM CUBE, Inffeldgasse 10/3, 8010 Graz

In Zusammenarbeit mit der Gesellschaft zur Förderung von Elektronischer Musik und Akustik – GesFEMA

Listening to the Air

Ron Kuivila – 2018

While we conceive of sound in terms of pitch, it can be equally well understood in terms of distance. Sounds ranging from 20 to 20,000 cycles per second have wavelengths ranging from 50 feet down to about one half of an inch. Meteorites hitting the earth's atmosphere can produce wavelengths of a half mile that can travel halfway across the globe. Short wavelengths, on the other hand, are quickly dissipated by the energy it takes to squeeze together and pull apart air molecules. Listening to the Air seeks to expose the shaping influence of air currents on these short sounds in networks of intermodulation and feedback that produce long sounds as a kind of audible shadow.

This solo for live electronics utilizes the particularly directional character of ultrasound to create an open air synthesizer where small household objects focus, scatter, and interconnect different streams of sound. The piece takes the form of a series episodes of varied duration. Each is based on a distinct feedback network with its own equalization, distortion and dynamics processing. Spatialization, tuning, and articulation of the feedback network is done entirely through the manipulation of small objects and the performer's physical presence. As the title suggests, some episodes focus on air currents themselves as a source of modulation while others focus more directly on the motions of the performer or the interaction of multiple streams of sound.

The Fifth Root of Two

Ron Kuivila – 2018

Preceding the performance, the Fifth root of two will be presented as a sound installation. This is another work in progress deriving from my fascination with the musical procedures of Javanese gamelan. Most gamelan instruments are of limited range, so melodic lines extending beyond an octave are never explicitly expressed. Those instruments that have extended range are generally softer, insinuating presences in the overall texture. Instruments playing the basic thread of the music are in unison or at doubled tempo, following specific procedures of elaboration to provide the additional note events. It is as if the octave ambiguity of the Shepard tone has been given full expression in a music of melodic mirage.

The fifth root of two attempts an exploration of this musical space following different rules. In this case a short melodic line of 8 to 12 pitches is generated via Brownian noise. Then every distinct sub-collection of three pitches is taken from the original line. Since pitches are repeated, this yields multiple collections of time points where those three pitches can be found. The three pitches are then played, sequencing through those time points until they are all exhausted and in synchronization with the basic melodic line. Each sub-collection is assigned to its own speaker among the 24 speakers in the CUBE.

Ron Kuivila composes music and designs sound installations that revolve around the unusual homemade and home modified electronic instruments he designs in hardware and software. He pioneered the use of ultrasound (In Appreciation) and sound sampling (Alphabet), compositional algorithms (Loose Canons), speech synthesis (The Linear Predictive Zoo) and high voltage phenomena (Pythagorean Puppet Theatre) in live performance. His sound installations extend this ideas to time scales beyond that of concert situations. He is currently University Professor of Music at Wesleyan University in Middletown, Connecticut.

Algorithms that Matter is an artistic research project by Hanns Holger Rutz and David Pirrò. It aims at understanding the increasing influence of algorithms, translating them into aesthetic positions in sound. The project builds a new perspective on algorithm agency by subjecting the realm of algorithms to experimentation within the praxis of computer music.

ALMAT is grounded in the idea that algorithms are agents that co-determine the boundary between an artistic machine or “apparatus” and the object produced through this machine. The central question is: How do algorithmic processes emerge and structure artistic praxis ? The hypothesis is that these processes, instead of being separated from the artist or programmer - as generators and transformers of infinite shapes - they exhibit a specific force that retroacts and changes artistic praxis itself.

ALMAT is a three-year project running from 2017 to 2020, within the framework of the Austrian Science Fund (FWF) - PEEK AR 403-GBL - and funded by the Austrian National Foundation for Research, Technology and Development (FTE) and by the State of Styria.

For further information on the research questions and methodology, please consult the project's website: <https://almat.iem.at>

Open CUBE – Kalendarium

- 29.01.2018 19h00 –** Open CUBE – Studierendenkonzert
Semesterarbeiten des Seminars “Computermusik und Multimedia” von Marko Ciciliani.
- 31.01.2018 18h00 –** Open CUBE – Werke Studierender des Bachelor und Masterstudiums Computermusik:
Studierende von Gerhard Eckel, Daniel Mayer, Marko Ciciliani.
- 06.03.2018 19h00 –** Open CUBE mit “The Third Guy” (Brüssels)
Primož Sukić - E-Gitarre, Game Controller
Ruben Orio – Schlagzeug, Game Controller
- 08.03.2018 18h00 –** “Beyond Cinema” - Künstlerhaus, Halle für Kunst & Medien (KM-), Burgring 2, 8010 Graz
Studierende von Marko Ciciliani, Gerhard Eckel, Klaus Hollinetz, Gerhard Nierhaus, Daniel Mayer.

Details zur Open CUBE Konzertreihe unter:

<https://iem.kug.ac.at/veranstaltungen/open-cube-cube-lecture.html>