

Giga-Hertz Award 2020

The Zentrum für Kunst und Medientechnologie (ZKM) in Karlsruhe, Germany, granted the Giga-Hertz Award 2020 to Alvin Lucier in recognition of his lifetime achievement. The award has been issued by ZKM since 2007 with the stated aim of promoting electronic music and providing incentives for new tonal and compositional possibilities. Additionally, winning two Giga-Hertz Production Awards were Chris Cheung's *RadianceScape 2016* and Mark Pilkington's *Hidden Forest*. Honorable mention for the Production Award was given to Annie Rüfenacht and Sandra Schmid and to Siamak Anvari. A two-day festival was held virtually and broadcasted online and encompassed the award ceremony, a concert of Lucier's compositions, a panel discussion and film screening on Lucier and his works, and a concert of the Production Award winners and honorable mention awardees.

Web: zkm.de/en/event/2020/11/giga-hertz-award-2020

ManiFeste 2020

ManiFeste, a festival of music and sound art, was held 31 August–14 September 2020 at the Institut de Recherche et Coordination Acoustique/Musique (IRCAM) in Paris, France. The festival included 15 concerts of electroacoustic music as well as sound installations. Several events at the festival focused on the work of French electroacoustic composer Éliane Radigue. One concert included a spatialized performance of Radigue's *Kyema* for tape, diffused in space by François Bonnet. The festival held a screening of Juruna Mallon's *Les Îles résonnantes*, a documentary film examining Radigue and her work,

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followed by an in-person conversation with the composer. The festival also held performances of Radigue's "Occam XIX," "Occam River XXVII," and "Occam Delta XIII," from her *Occam Ocean* series of works. Another concert at ManiFeste presented work from the IRCAM Cursus program, featuring short compositions produced by students of the international computer music workshop. The festival's "Musiques-Fictions" concert presented three electroacoustic and theatrical adaptations of contemporary literary works, including Annie Ernaux's *L'autre fille*, Maylis de Kerangal's *Naissance d'un pont*, and Céline Minard's *Bacchantes*. Two sound installations were presented at the festival. Jean-Luc Hervé's Biotope integrated sound art into a garden environment and the Umbrellium artistic collective's Singing Trees outfitted trees with presence-sensing loudspeakers throughout a forest.

Web: manifeste.ircam.fr

DAFx 2020

The 23rd International Conference on Digital Audio Effects (DAFx), a virtual edition of the conference referred to by the organizers as eDAFx, took place 9–11 September 2020 (an in-person edition of DAFx 2020 is planned to be held in 2021). Hosted by the Vienna University of Music and Performing Arts, eDAFx 2020 featured three days of talks related to digital audio effects, sound synthesis, physical modeling, music information retrieval, machine learning for audio processing, and spatial sound processing. Research presented at the eDAFx included the techniques for programming graphics processing units to implement digital audio effects, the use of Fourier decomposition for drum synthesis, the application of velvet-noise feedback delay networks in artificial reverber-

ation, and modeling of time-varying audio effects using neural networks. The conference's Best Paper award was given to Davide Albertini, Alberto Bernardini, and Augusto Sarti's "Antiderivative Antialiasing in Non-linear Wave Digital Filters." The Second-Best Paper award was given to Kurt James Werner's "Energy-Preserving Time-Varying Schroeder All-Pass Filters."

Web: dafx2020.mdw.ac.at

BEAST FEaST 2020

The Birmingham Electroacoustic Sound Theatre (BEAST) held the 2020 edition of its annual festival of electronic music, BEAST FEaST, 1–2 May 2020 at the University of Birmingham in Birmingham, UK. The festival comprised concerts of electroacoustic music, lectures, and virtual installations of sonic art. Each concert was broadcasted online in stereo or binaural formats; binaural concerts were designed to convey the spatial sound characteristics of the BEAST itself. Among the festival's lectures, Erik Nyström presented a SuperCollider-based programming framework for composition with large multichannel audio systems, Rob Mackay discussed a project in which microphones were set up to broadcast live from sites along the migration path of monarch butterflies across North America, and Kosmas Giannoutakis presented work synthesizing the creative output of multiple composers into a coherent whole using machine learning. Virtual installations featured at the festival included Peter Batchelor and Ian Bilson's *Contraption*, a collection of featureless columns projecting sound to suggest complicated inner workings, and Tony James Morton's *Drops*, an interactive audiovisual system reflecting on humankind's relationship with the natural world.

Web: www.beast.bham.ac.uk/beast-feast-2020

Splice Festival

The fourth Splice Festival took place 22–24 October 2020, held virtually by the University of Georgia in Athens, Georgia, USA. The three-day festival featured concerts, talks, and workshops focusing on the intersection of musical performance and technology. Among the musical works featured at the festival, Cecilia Suhr's *AI vs. Human Consciousness* suggested a conversation between an artificial intelligence and a human; Garrison Gerard's *Riant* was performed by Modular Ensemble, an electroacoustic quartet, and included a conductor whose motions were digitally captured and used to control the electronics processing. The festival included an invited talk by composer Nina Young, who discussed how play, experimentation, and improvisation form the impetus of her creative process. Other talks at the festival examined ensemble practice under quarantine and long-form musical practice on the YouTube video streaming service over the span

of a year. Two workshops covered three-dimensional audio production and live performance using the Max programming environment. Thanks to the virtual nature of the festival, all performances and talks are available to be watched online.

Web: splicemusic.org/festival/iv/about

International Conference on Computational Creativity

The International Conference on Computational Creativity (ICCC) was held virtually 7–11 September 2020. The conference was organized by the University of Coimbra in Coimbra, Portugal, and comprised research presentations, keynote talks, workshops, sound art, and a doctoral consortium related to computational creativity. Topics of the conference proceedings included applications of cocreativity between humans and machines, formalisms and methodologies for the evaluation of creativity

in computational systems, computational paradigms for understanding creativity, ethical considerations in the design of creative computational systems, cognitive and psychological computational models of creativity, and big data approaches to computational creativity. ICCC 2020's keynote lectures were given by Emilia Gómez, discussing her research on how humans describe music and its application to listening experiences, and Simon Lucas, covering the use of artificial intelligence to partially automate game design. Research presented at the conference included the use of machine learning to generate dance moves given a musical input, a real-time system for human–robot interactive rap battles, and generative singing synthesis without the use of a musical score or lyrics. Workshops at ICCC 2020 covered the future of cocreative systems and the use of generative adversarial networks to creating visual works.

Web: computationalcreativity.net/iccc20/program