Hopkins Center for the Arts
and
The Department of Music
presents

NEW MUSIC FESTIVAL

MUSIC, SOUNSPACE & ARCHITECTURE
Kui Dong director
Brian Chalif ’16, Daniel Miller G associate directors

Festival Opening Reception

Sunday, May 1
6 pm • Top of the Hop
NEW MUSIC FESTIVAL

FESTIVAL OPENING RECEPTION
Top of the Hop

6 pm • Reception

6:30 pm • Contemporary Music Lab Performance

7 pm • Panel Discussion

8 pm • Installation
The Hop Garage
Daniel Miller G, Kyle Kaplan G, Stephen Maier G, and Jefferey Mentch G
PANEL DISCUSSION

The Music of Nature: Animal Communication and Soundscapes
Laurel Symes and Hannah ter Hofstede

Laurel Symes is a Neukom Fellow and member of the Department of Psychological and Brain Sciences and the Department of Biology. She studies how animals (including people) produce, perceive, and process signals. Laurel's work is particularly focused on understanding how evolution shapes sensory systems and decision-making. These interests have led her to study a variety of organisms, including tree crickets, katydids, frogs, bats, and humans. Laurel completed a BS in Biology at Denison University and a PhD in Biology at Dartmouth College. She then conducted post-doctoral research at the Smithsonian Tropical Research Institute in Panama and at the University of Wisconsin in Milwaukee before returning to Dartmouth as a Neukom Fellow in the summer of 2015.

Hannah ter Hofstede is an assistant professor at Dartmouth College in the Department of Biological Sciences. She investigates the sensory ecology of predator-prey interactions and communication between animals using bats and their insect prey as study systems. She did her PhD at the University of Toronto investigating the role of hearing sensitivity in defense strategies of insects. She completed two postdoctoral positions in England, one at the University of Bristol and the other at Cambridge University, conducting research on bat-moth interactions and cricket communication. Current projects include the function of communication calls between bats and the role of soundscapes on acoustic communication in katydids.
The Music of the Spheres: from Pythagoras' Ratios to Xenakis' Microsound and Polytopes, How Music and Architecture Grew Up Together

Michael Casey

ABSTRACT:

This talk will be a guided tour of how music has informed architecture since antiquity--focusing on the contributions of two Greeks. On hearing a pleasing consonance in the sound of hammers hitting anvils while on a walk, as legend has it, Pythagoras of Samos (c. 570 - c. 495 BC) created the roots of the Western system of musical scales. Recent measurements appear to confirm theories that the Pythagorean ratio which underlies musical scales also permeates the architecture of the Athens Parthenon and other important ancient Greek structures. Thus, music and architecture share a common mathematical bond. In the 20th century, Greek architect and composer Iannis Xenakis (1922–2001) created new forms of music called Microsound (sonic atoms) and Polytopes (sonic-architectures) using mathematical theories of signals and geometric forms. Via his fusion of mathematics, sound, and form, Xenakis' musical architectures expressed a new bond between art and science, yielding creative "alloys" which continue to inspire today's leading artists and musicians.
Professor **Michael Casey** is the James Wright Professor of Music and former chair of the Department of Music (2009-2013) at Dartmouth. He has received international prizes for his musical works from the Bourges foundation (IMEB), NEWCOMP, and the Discover Awards. Jointly appointed in Music, Computer Science, and Cognitive Science at Dartmouth, his courses include music cognition and neuroscience, creative coding, and music analysis/synthesis. With his colleagues in the Bregman Media Labs at Dartmouth, he conducts research on how the human brain represents music in distributed and overlapping neural codes, and how we may use these neural codes to make music and instruments of the future.

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*An Orchestra in Miniature: How Microbes Explore Physical, DNA and Protein Space*
Olga Zhaxybayeva

**Olga Zhaxybayeva** is an assistant professor of Biological Sciences and an adjunct assistant professor of Computer Science at Dartmouth. She earned her B.Sc. degree in Applied Mathematics from Kazakh State University in Almaty, Kazakhstan and Ph.D. in Genetics from the University of Connecticut in Storrs, CT. As a child she learned to play violin and piano at Amre Kashaubayev Children's Music School in Almaty, Kazakhstan. While Olga no longer plays music herself, she draws her daily energy and inspiration from listening to classical music on VPR Classical radio station. In her research laboratory, she and her students study how microbes evolve, focusing on unraveling principles of both immediate responses of microorganisms to changing environmental conditions and their long-term adaptations that eventually lead to diversification of life forms.
**Something Between Us**

Jodie Mack

**Jodie Mack** is an experimental animator who received her MFA in film, video, and new media from The School of the Art Institute of Chicago in 2007. Combining the formal techniques and structures of abstract/absolute animation with those of cinematic genres, her handmade films use collage to explore the relationship between graphic cinema and storytelling, the tension between form and meaning.

Mack’s 16mm films have screened at a variety of venues including the Ann Arbor Film Festival, Edinburgh International Film Festival, Images Festival, Projections at the New York Film Festival, and the Viennale. She has presented solo programs at the 25FPS Festival, Anthology Film Archives, BFI London Film Festival, Harvard Film Archive, National Gallery of Art, REDCAT, International Film Festival Rotterdam, Shenzhen Independent Animation Biennale, and Wexner Center for the Arts among others. Her work has been featured in publications including Artforum, Cinema Scope, Senses of Cinema, and The New York Times. She currently works as an Associate Professor of Animation at Dartmouth College, where she co-organizes an experimental media series, EYEWASH, and serves as the 2015-16 Sony Music Fellow.
Special thanks to the Department of Music, the Hopkins Center for the Arts, the President’s Office, the Bregman Media Labs, and the Graduate Student Council for their generous support.
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Monday MAY 2
Ensemble Mise-en in Concert
7 pm • Faulkner Recital
This New York-based collective promotes dynamic performances of new works
and provides audiences with meaningful connections to the vast body of
contemporary music.

Tuesday MAY 3
Ensemble Mise-en in Concert
7 pm • Spaulding Auditorium
Large-scale concert of original music composed for the festival by aspiring and
established Dartmouth composers.

Festival Reception
9 pm • Top of the Hop

Improvisation Concert
10 pm • Sarner Underground, Collis Center
Undergraduate and Digital Musics masters students present a late-evening
concert featuring improvised music and electronic and digital sounds and images.