

Thursday, March 28, 2024, 8 PM Taplin Auditorium

# **PLOrk: the Princeton Laptop Orchestra SOUND SYSTEM**

Jeff Snyder, Director Davis Polito, Assistant Director Liam Elliot, Associate Director

**PLOrk, (the Princeton Laptop Orchestra)** presents "PLOrk: Sound System," featuring guest percussionists **Evan Chapman, Gladstone Deluxe**, and **Mark Eichenberger**, and scupltor/light artist **Ezra Masch**. This special program, performed on electronic and acoustic instruments, features a custom-built light sculpture drum-controlled installation, two enormous subwoofer speakers that are also instruments themselves, a strange multiplayer video game where the performers turn screen pixels directly into sound, and a piece that uses the audience's cellphones as its instrument.

We invite the community to experience the sounds and sights of these new experiments in sound and light.

#### About the Department of Music:

The Department of Music at Princeton University provides its undergraduates—whether they major or minor in Music—the opportunity to learn from a world-renowned faculty of scholars and composers. Performance opportunities include student-led and departmental ensembles like symphony orchestras, multi-genre choruses, jazz, contemporary music, African music, steel band, laptop orchestra, and much more, and students have access to private instrumental and voice lessons from eminent performing artists. The graduate program offers two distinct and prestigious Ph.D. programs in composition or musicology; graduate students receive fully-funded, immersive experiences conducting research, advancing their craft, and collaborating with faculty within Princeton University's inspiring, interdisciplinary campus.

For more information about the Department of Music and other upcoming events, and to sign-up for our mailing list, please visit music.princeton.edu.

## PROGRAM

(pre-show) Chime/Breathe
Extruded Curve <b>Photosensitive epilepsy warning: flashing lights</b>
Photokeratitis (for David Tudor)
Set Up, Play, Tear Down
Low End Theory

### ABOUT

#### **Ensemble Members**

lan Accetta Saadi Ahmad David Borts Laeo Crnković-Rubsamen Liam Esparraguera Sai Jogannagari Caleb Marhoover Moad Musbahi Yue Qiao

**PLOrk: Princeton Laptop Orchestra**: First performing in 2006, the Princeton Laptop Orchestra, or PLOrk, takes the traditional model of the orchestra and reinvents it for the 21st century. Each laptopist performs with a laptop and custom designed hemispherical speaker that emulates the way traditional orchestral instruments cast their sound in space. Wireless networking and video augment the familiar role of the conductor, suggesting unprecedented ways of organizing large ensembles.

Originally founded by Dan Trueman and Perry Cook, the group is currently directed by composer and instrument designer Jeff Snyder and features new electronic instruments that arise from his research. Performers and composers who have worked with PLOrk include Zakir Hussain, Pauline Oliveros, Matmos, Sō Percussion, the American Composers Orchestra, and others. In the past 11 years, PLOrk has performed widely — presented by Carnegie Hall, the Northwestern Spring Festival in Chicago, the American Academy of Sciences in DC, the Kitchen (NYC), 92Y and others — and has inspired the formation of laptop orchestras across the world, from Oslo to Bangkok.

The use of photographic, video, or audio equipment is strictly prohibited. Please turn off or mute electronic devices for the duration of the performance **except for the first piece, where you've** got to have your phone out and have the sound on because you're in the piece.

## PROGRAM NOTES

#### Chime/Breathe

#### by Liam Elliot and David Borts

Chimes around the room resonate through phones who inhale sound and breathe out in new tunings.

#### **Extruded Curve**

#### by PLOrk + Ezra Masch and Guests

#### PHOTOSENSITIVE EPILEPSY WARNING: FLASHING LIGHTS

with: Erza Masch - light sculptures Davis Polito and David Braun - light programming Mark Eichenberger - electronic percussion Evan Chapman - electronic percussion Gladstone Deluxe - electronic percussion David Borts - pitched instrument programming

This piece is a collaboration between PLOrk and sculptor Ezra Masch. Ezra creates large-scale installations using LED lights, and for this piece he worked with PLOrk to design a set of light fixtures that are controllable with digital signals. Percussionists Mark Eichenberger, Evan Chapman, and Gladstone Deluxe join PLOrk to perform the piece, using Sensory Percussion electronic drums to convert their gestures into sound and light. The visualizations were created by Ezra, Davis Polito, and David Braun using TouchDesigner, and David Borts wrote the pitched material and designed the software instrument being played by the "tether" players in PLOrk behind the lights.

#### Photokeratitis (for David Tudor)

#### by Sam Pluta

For the past couple of years, I have been obsessed with single sample feedback systems. These systems tend to be chaotic, where the smallest change can completely alter the nature of the sound produced, providing possibilities ranging from rich sideband synthesis to pure noise, and everywhere in between. *Photokeratitis* uses a system of 4 16x-oversampled oscillators feeding back on each other 800,000+ times per second. Within the universe of this simple system are myriad tiny galaxies of sound. From this nearly infinite palette, the performers of this work have found their own form within the chaos, having trained a multilayer perceptron neural network to control this many-dimensional instrument with a single slider.

# PROGRAM NOTES

#### Set Up, Play, Tear Down

#### by Matt Wang

A collaborative game-form piece structured as an abstract simulation of a musical performance.

Players "set up" a performance space, "play" within it, then "tear down" the space when done.

It uses a digital instrument system made in Unity to support networked play between the performers and take advantage of video game control conventions.

#### Low End Theory

#### by Daby Baby

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