

**Celeste Betancur Gutierrez** I am obsessed with dance, magic and music.

**Ge Wang** is an Associate Professor at Stanford University's CCRMA and a Senior Fellow at Stanford Human-Centered AI Institute. He researches the artful design of tools, toys, games and interactive AI systems. Ge is the architect of the Chuck music programming language and the director of the Stanford Laptop Orchestra. He is the Co-founder of Smule and the designer of the Ocarina and Magic Piano apps for mobile phones. A 2016 Guggenheim Fellow, Ge is the author of *Artful Design: Technology in Search of the Sublime*, a photo comic book about how we shape technology—and how technology shapes us.

Dr. **Matthew Wright** is a media systems designer, improvising composer/musician, computer music researcher, father of an energetic 6-year-old, alopecia survivor, and CCRMA's Executive Director. His research has included real-time mapping of musical gestures to sound synthesis, helping develop and promote the Sound Description Interchange Format (SDIF) and Open Sound Control (OSC) standards, computer modeling of the perception of musical rhythm, and musical creation with technology in a live performance context.

**Scott Smallwood** was born in Dallas, Texas, and grew up at 10,000 feet in elevation in the Colorado Rockies. At the age of 10, his father gave him a cassette tape recorder, and ever since he has been fascinated by the possibilities of recorded sound. He listens and makes recordings and observations of places and objects, and draws the resulting sounds into compositions and performances. Ranging from sonic photographs, studio compositions, instrumental pieces, sound installations, and improvisations, the resulting pieces are often textural, always mindful of space and subtlety.

A sound artist, composer, performer, and educator, Smallwood holds music degrees from Seattle Pacific University, Miami University, Peabody Conservatory, and Princeton University, where he also held postdoctoral research associate position, working with the renowned Princeton Laptop Orchestra (PLOrk). He currently lives in Edmonton, Alberta, where he is an Associate Professor of composition at the University of Alberta.



**The Stanford Laptop Orchestra (SLOrk)** is a large-scale, computer-mediated ensemble that explores cutting-edge technology in combination with conventional musical contexts—while transforming both. Founded in 2008 by Ge Wang with students, faculty, and staff at Stanford University's Center for Computer Research in Music and Acoustics (CCRMA), SLOrk consists of more than 20 laptops, human performers, controllers, and custom multi-channel speaker arrays designed to provide each computer meta-instrument with its own identity and presence. The orchestra fuses a powerful sea of sound with the immediacy of human music-making, capturing the irreplaceable energy of a live performance ensemble and its sonic intimacy. At the same time, the orchestra makes use of the computer's capabilities for new sounds and interactions—to imagine and realize new instruments for musical expression. Offstage, SLOrk serves as a unique classroom that explores music, computer science, artful design, composition, and live performance in a naturally interdisciplinary way.

**Next SLOrk Concert:** June 8, 2024, Bing Concert Hall

<https://slork.stanford.edu/>

# Stanford Laptop Orchestra (SLOrk)

presents

## SLOrktastic Chamber Music 2024

Thursday May 2, 2024, 7:30pm  
CCRMA Stage, Stanford University  
(in-person & live-streamed)



### Ensemble

Ben Hoang | Ben Tripp | Daniel Mottesi | Eito Murakami  
Ivan Villa-Renteria | Kelly Cochran | Kiran Bhat | Leo Jacoby  
Matan Abrams | Pedro González | Peter Li | Samantha Liu

### Co-directors

Matt Wright & Celeste Betancur

### Director

Ge Wang



## **a breeze brings...** (2006)

*Scott Smallwood*

This "prelude" came about as a result of several mornings of hacking in Chuck. As I listened to the wind chimes outside my door, I began to realize that they were influencing the intuitive process of my experimentations. Before long I had created some algorithmic instruments that sounded rather nice together. This piece grows slowly out of the acoustic soundscape of the space, and then slowly subsides back into it, like a very slow breeze.

## **abracadabra** (2024)

*Celeste Betancur*

Slork stations are disposed as a talisman around the floor, spells made of programming languages. The code will flow in a dance from screen to screen and some magic tricks will be executed.

## **Birdinem** (2024)

*Matan Abrams & Leo Jacoby*

What prisons do we build within our own minds? What narratives do we construct about our inner realities? In this piece, we explore the role of expression in regaining a sense of self and freedom. Through unearthing raw, organic voices and making sense of the chaos that surrounds us, we soar to new heights.

## **Totality** (2024)

*Ivan Villa-Renteria, Ben Hoang, Peter Li*

Inspired by the recent solar eclipse that swept through parts of the US, this is an aural depiction of a series of breathtaking astronomical phenomena. The piece aims to recreate this once-in-a-lifetime experience by incorporating contrasting electronic instruments that interact with each other dynamically through time.

## **YESBOT** (2024)

*Kiran Bhat & Samantha Liu*

A mad scientist teaches a robot to perform a song. What could go wrong?

## **Dendrop** (2024)

*Ben Tripp & Danny Mottes*

This piece is a study in natural sounds, coordination, and polyrhythm. It features tuned samples of water drips, wood blocks, gongs, and even a bell live-recorded for the piece from the oldest church in the United States. All of the available hemispherical speakers are critical for its spatially immersive deconstruction of rain.

## **Mountains Grow Old Together** (2024)

*Kelly Cochran*

Inspired by a moment of peace found in the countryside near the French Alps, where the faint jingle of cowbells can be heard floating timelessly between hills. Also inspired by the bittersweet echoes of memories of old friendships.

## **Metal Pipes** (2024)

*Pedro González & Eito Murakami*

This composition explores the interplay between acoustic vibrations of bare metal pipes and their digitally processed sounds. The sequence of movements by the performers directly manipulates the audio signals in real-time, including dynamics, pitch, and playback rate. The six distinct scenes in the piece exemplify the diversity of ordinary objects, and offers a tour of playful sound palettes.

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**Ben Hoang** is a 3rd year undergraduate student studying computer science and music. He came from a classical piano background and just recently got involved in computer music through SLOrk. In his free time, he loves to ride his motorcycle, skateboard, and play games with friends.

**Ben Tripp** is a lifelong musician, currently studying Symbolic Systems AI with a co-term in Computer Science. Ben loves to mess around with all sorts of different ways to make sounds, but is primarily a singer.

**Danny Mottes** is an undergraduate studying symbolic systems and music. He was brought up playing piano and guitar and, upon learning to code at Stanford, began to delve into the world of computer music.

**Eito Murakami** is a 2nd year master's student at CCRMA who designs digital interfaces and instruments that promote a playful workflow for transforming creative ideas into artistic content. His research involves developing audio playback systems in virtual reality to process dynamic spatial reverb and multiplayer interactions.

**Ivan Villa-Renteria** is a Coterminal Masters student in Computer Science. He has played Jarocho harp in Mariachi ensembles, and picked up electric guitar during the pandemic. He is endlessly mesmerized and fascinated by Synthwave, Vaporwave, Japanese City Pop, and anything else that the Youtube algorithm fed him during his college years. His research involves creating and training controllable generative AI models for music performance and music production.

**Kelly Cochran** thinks program bios should be in first person. I'm a Computer Science Ph.D. student studying computational biology, and SLOrk is my home at Stanford. I am who I am thanks to years of conducting and playing various brass instruments through high school and with the Duke Marching Band and Wind Symphony.

**Kiran Bhat** is a senior studying computer science. He has been playing piano and writing music for 16 years. He believes that SLOrk has helped him combine his passions for music composition and coding to make some cool stuff. Find out if he is right in YESBOT!

**Leo Jacoby** is a Junior studying Symbolic Systems. He plays bass with a campus band called In Town. Leo loves electronic music and is interested in exploring how it lends itself to performance through this ensemble.

**Matan Abrams** is a Coterminal Masters student in Computer Science. He started his musical journey with the piano and later picked up the guitar as well. He loves to compose and improvise and has developed a love for computer music through this class - Stanford Laptop Orchestra. He also loves to play frisbee, soccer, and most other sports.

**Pedro González** is a Spanish violinist, composer, and researcher specialized in multidisciplinary and intermedia art projects. His compositions have been performed at various festivals around Europe, including the Internationales Musikfest Hamburg, International Computer Music Conference, Sound & Music Computing Conference, Centre National de Création Musicale (GRAME), Musica Festival in Strasbourg, or Klangwerkstatt, Berlin,. In March 2021, Pedro was appointed Professor for Contemporary Music, Multimedia Composition, and Non Idiomatic Improvisation at ESMUC in Barcelona. He also gives seminars on live electronics and multimedia at the Musikhochschule Lübeck and works as a freelance composer and violinist in Spain and Northern Germany.

**Peter Li** is a 3rd year undergraduate student studying Computer Science and Music. He came from a classical piano background and later grew to love improv and composition. He composed for Gaieties 2023, performs with the Slmps as a musical improviser, sound designs for multiple theatrical organizations on campus, and raps under the name PTZ. He is super excited to begin his computer music journey at SLOrk! Slay, slatt, skrrrt.

**Samantha Liu** is a first year masters student in Computer Science. Her current research interest is in AI for education. Her instruments of choice are the ukulele and the whistle, though she is always excited about new instruments— especially DIY ones that turn out in unexpected ways.