

**CCRMA.
Fiftieth.
Anniversary.
Concerts?**



Concert 2

Saturday, February 3, 2024 | 7:30 PM



Center for Computer Research in Music and Acoustics

In 1964, while pursuing graduate studies with Professor Leland Smith, John Chowning began the work in computer music at Stanford using Music IV with help from Max Mathews of Bell Telephone Laboratories. Initial experiments were carried out with the help of the Computer Science Department on their time-sharing computer system. Together, Chowning and computer science student David Poole put together the first on-line computer composition and synthesis system, with technical help from Computer Science and Electrical Engineering. As a result, John Chowning wrote the first programs for moving sound sources through a four-speaker space.

In 1966, the Stanford Artificial Intelligence Laboratory moved to the D.C. Power Laboratory Building on Arastradero Road. It was at this same time that Chowning joined the music faculty teaching music theory and computer music, and the first course in computer-generated music was offered. Exploratory work on musical timbres began in 1967 and led to the discovery of the use of frequency modulation (FM) for sound synthesis by John Chowning with the help of David Poole and engineering graduate student George Gucker. The technology was commercialized by Yamaha Corporation, resulting in the DX-7 (1983), the first commercial digital music synthesizer.

Early compositions from CCRMA included: "Sabelithe I" for sound and 3 performers by John Chowning in 1966 (never completed due to the Artificial Intelligence Laboratories move to the D.C. Power Laboratory Building); "Rondino" for stereo tape, by Leland Smith in 1968; "Pour" for sound and recorded voice, by Martin Bresnick in 1969; "Fragment" for stereo tape, by Martin Bresnick in 1970; "Sabelithe II" for quad tape, by John Chowning; "Machines of Loving Grace" for bassoon and narrator with stereo tape and "Rhapsody for Flute and Computer" for flute and stereo tape, by Leland Smith in 1971; "Turenas" for quad tape, by John Chowning in 1972; "A Little Traveling Music" for amplified piano and quad tape, by Loren Rush in 1974; a realization of Robert Erickson's "Loops" by John Grey in 1974; and "Song and Dance" for orchestra and quad tape, by Loren Rush and commissioned by the San Francisco Symphony in 1975.

Because of their growing reputation, members of the computer music group at Stanford were asked by Pierre Boulez in 1973 to participate in the planning stages of his music research institute being formed as part of the Centre Pompidou in Paris. In August 1975, the IRCAM group came to Stanford to participate in a special workshop on computer music. The research relationship and exchange between the two centers has continued over the years.

In 1974, John Chowning, Loren Rush, John M. Grey, and James A. Moorer submitted an application to the National Science Foundation (NSF) to support research at a new Center for Computer Research in Music and Acoustics (CCRMA). Other funding included a gift from Mrs. Doreen B. Townsend and a grant from the National Endowment for the Arts for computing equipment for musical purposes. To be able to speed up music synthesis, CCRMA commissioned a real-time digital synthesizer from Systems Concepts designed by Pete Samson (called the Samson Box) which came online in 1977. Although a part of the Music Department at Stanford, CCRMA continued to share facilities and computing equipment with the Stanford Artificial Intelligence Laboratory (SAIL) of the Computer Science Department. The founding co-directors of CCRMA were faculty members John Chowning and Leland Smith and research associates John M. Grey, James A. Moorer and Loren Rush. The first computer music concert ("An Evening of Computer Music and Film") was held August 10, 1976 at Dinkelspiel Auditorium and in 1978 CCRMA presented a concert of computer music at the Stanford Museum of Art.

Many thanks to all those in the CCRMA Staff and Bing Staff who have helped in the production of this concert!

The program cover art was created with an AI image generator based on the poster of the 1974 film *Man on a Swing*.

CCRMA Brief History excerpt on the last page written by John Chowning et al.

Thank you for coming!
Please join us again for these upcoming concerts in the CCRMA Stage:

Amirtha Kidambi and Luke Stewart

THU FEB 8 | 7:30pm

Ensemble Adapter | Stanford Graduate Composers

SUN FEB 11 | 7:30pm

Miya Masaoka

WED FEB 14 | 7:30pm

Synthetic Realms

THU FEB 22 | 7:30pm

Quarantine Sessions #118

SUN FEB 25 | 1:00pm

Ludmila Yurina

THU MAR 28 | 7:30pm

All events will also be live streamed on CCRMA LIVE:
ccrma.stanford.edu/live

Directions and parking: ccrma.stanford.edu/about/directions

For more information visit ccrma.stanford.edu

If you would like to stay up to date with our events, please subscribe to our mailing list: ccrma-mail.stanford.edu/mailman/listinfo/events

STANFORD'S LAND ACKNOWLEDGMENT STATEMENT

Stanford sits on the ancestral land of the Muwekma Ohlone Tribe. This land was and continues to be of great importance to the Ohlone people. Consistent with our values of community and inclusion, we have a responsibility to acknowledge, honor, and make visible the University's relationship to Native peoples.

www.stanford.edu/native-peoples-relationship

Catching Sparks

NOLAN MIRANDA

Developed and premiered at ZKM Karlsruhe, 2023

Catching Sparks is a collaborative, improvisatory interactive installation designed for participants with or without musical training. Catch sparks! Pass them to co-conspirators? Use them; express yourself. What happens when many play together?

Please visit the installation in the foyer.

PROGRAM

mb_ant_phaz (2024)

CHRISTOPHER JETTE

Free Motion (1990)

CHRIS CHAFE

Robyn Schulkowsky, percussion
Joey Baron, percussion
Chris Chafe, celletto

Love in the Asylum (1980)

MICHAEL McNABB

The Days, The Conversation and The Dallas Thermidor (2024)

Robyn Schulkowsky, percussion
Joey Baron, percussion
Clara Deser, data
Nilam Ram, data and data driving
Chris Chafe, dilruba

THE SONIFICATION ENSEMBLE

Ray Du, morin khuur
Taylor Goss, guitar
Soohyun Kim, guitar
Garrett Kukier, guitar
Kevin Wenkai Liao, banjo
Rinseo Park, tiny cymbals & tympany
Tristan Peng, piano
Andrew James Sung, cello
Rochelle Tham, computer sound
Leaf Ye, ratchet sticks & castenets
Libby Ye, floor tom & superball

I N T E R M I S S I O N

Little House (2024)

Jackson Roth, video

LOGAN KIBLER

Two Carrier FM Improvisation (2024)

Madalyn Merkey, live electronics

MADALYN MERKEY

Dinosaur Music (1986)

BILL SCHOTTSTAEDT

Tickle That Dinosaur! (2024)

Fernando Lopez-Lezcano,
modular synthesizers

FERNANDO LOPEZ-LEZCANO

Michael McNabb is a composer, performer, and computer music pioneer. He has received numerous awards including from the Prix Ars Electronica and National Endowment for the Arts, and recognition from national and local music writers and critics, and has contributed to books and journals in the field. He studied and worked at CCRMA from 1974 until receiving his Doctor of Musical Arts degree in composition in 1980, returning in 1985 on a second NEA grant to compose the ballet score “Invisible Cities” for ODC/San Francisco. Two CD releases are available on the Wergo label, “Invisible Cities”, and “Dreamsong”, whose title piece New Yorker writer Andrew Porter termed “a classic of the genre”, and the San Jose Mercury News named as one of the best works of the last 40 years. These albums and his most recent release “The Lark Full Cloud” are available on all major streaming services. Michael was also a senior Silicon Valley technologist until retiring in 2022 as a Principal Software Engineer at the Walt Disney Company. For more about Michael, visit www.mcnabb.com.

Madalyn Merkey is an American electronic musician acclaimed for her avant-garde contributions to the experimental music scene in the Bay Area. Her music is characterized by its intricate soundscapes, blending various textures and tones to create immersive auditory experiences.

Nolan Miranda is

Nilam Ram, Professor of Communication and of Psychology, studies the dynamic interplay of psychological and media processes and how they change from moment-to-moment and across the life span. He is developing a variety of study paradigms that use recent developments in data science and the intensive data streams arriving from social media, mobile sensors, and smartphones to study change at multiple time scales.

Bill Schottstaedt grew up in Oklahoma, got various degrees in music from Stanford, worked for a few years in the computer industry, then joined the staff of CCRMA, and rusted in place.

Robyn Schulkowsky has premiered/recorded some of the most important solo percussion works of the 20th and 21st centuries, working with composers Karlheinz Stockhausen, Iannis Xenakis, John Cage, Morton Feldman. As founder of RhythmLab, she has taken percussion workshops to countless cities. The focus is the immediacy of sonic discovery and tactile intensity of music – in rhythm, sound and movement.

Face Coverings Are Strongly Recommended. We encourage you to continue wearing masks for the comfort of our audience members, staff, and artists.

To Ensure a More Pleasant Experience for All: No food, drink, or smoking is permitted in the concert space. Cameras and other recording equipment are prohibited. Please ensure that your phone, other electronic devices, or watch alarm are all turned off. Thank you.

ABOUT THE ARTISTS

Joey Baron has developed a unique approach to making music with the drum set, evident in his extended tenures with jazz icons Jim Hall, Steve Kuhn, John Abercrombie and Bill Frisell. Ongoing projects include solo concerts & workshops, Baron- Schulkowsky duo, Mix Monk and most recently being featured at SFJazz with Julian Lage's tribute to Jim Hall.

Chris Chafe is a composer, improviser, and cellist and Director of Stanford University's Center for Computer Research in Music and Acoustics (CCRMA). In 2019, he was International Visiting Research Scholar at the University of British Columbia, Visiting Professor at the Politecnico di Torino, and Edgard-Varèse Guest Professor at the Technical University of Berlin. At IRCAM (Paris) and The Banff Centre (Alberta), he has pursued methods for digital synthesis, music performance and real-time internet collaboration.

Clara Deser is a senior scientist at the National Center for Atmospheric Research where she leads the Climate Analysis Section. Deser was elected to the United States National Academy of Sciences in 2021.

Christopher Jette is a curator of lovely sounds, creating work as a composer and new media artist. His creative work explores the artistic possibilities at the intersection of human performers/creators and technological tools. A highly collaborative artist, Jette has created works that involve dance, theater, websites, architecture, light arrays, sculpture, food, toys, typewriters, cell phones, a reindeer herd and good ol' fashioned wood and steel instruments. Jette lives at 37°25'19.1994"N 122°7'58.08"W and is currently obsessed with making music with a single string. Interesting things to discuss with him include living in Alaska, sailing from San Francisco to La Paz and fracturing a posterior rib while riding a kick scooter at the Flood Park Pump Track last week. More and Less at <https://cj.lovelyweather.com/>

Fernando Lopez-Lezcano was given a choice of instruments when he was a kid and liked the piano best. His dad was an engineer and philosopher, his mother loved biology, music and the arts. His background includes both music and engineering, and he thrives on a balanced diet of art and technology. He throws computers, software algorithms, engineering and sound into a blender and serves the result over many speakers. He can hack Linux for a living and likes to pretend he can still play the piano. For the past few years he has returned to his roots, and has been working on developing a performance practice that uses modular synthesizers for realtime performances. <https://ccrma.stanford.edu/~nando/>

Logan Kibler is currently a first year master's student at CCRMA. She has a bachelor's degree from the University of Michigan in computer engineering, and a bachelor's degree in sound engineering through the UM Performing Arts Technology department. She enjoys writing songs with vivid lyrical stories and light electronic dance music productions.

PROGRAM NOTES

***mb_ant_phaz* | Christopher Jette**

In the summer of 2021 my daughter and I spent our days riding bikes about the neighborhood visiting neighbors. On one of these sojourns, while she was playing with some dinosaurs and a neighbor, I began documenting the ant colony busily traversing a neighbors tree. As the ants concerned themselves with TRANsPortation over CENTral pathways I reflected on Henry David Thoreau's ants at Walden Pond having DENTAL decapitation battles. My, how times have changed. Summer 2021 was also a time when naps reliably occurred and I would use this time to make recordings. I would record an improvisation on the monoboard, a single string instrument with 2 pickups and which is processed by a max patch. The processing patch that I was focusing on at that point utilizes user controlled delay lines. The "phaz" element of the title refers to the fact that dynamic control is exercised on the phase component of 20 sinusoids, which in turn control the delay times. The ambisonic diffusion is a series of procedural wanderings in 2d space. Each audio recording is unique and is an exploration of a different aspect of the instrument. This particular take is part of a series exploring short percussive sounds, ambience of the system and the emergence of multiple contrapuntal layers of sound before abruptly dissolving into monophony.

***Free Motion* | Chris Chafe**

Mesh
Rubbing
Capture & Release

Free Motion is a work in three parts between freely improvising soloists and a backing track composed with sampled sounds. The movements explore the phenomenon of friction which was on our minds at CCRMA during the period in various ways, from bowed string research to practical lessons in plate tectonics (the quake of '89).

The work is similar in its sound materials to a previously composed fixed media piece, *Vanishing Point*, but it differs in its construction. The earlier piece was composed while improvising with chaos algorithms. The phrases created this way were very active, but difficult to extend as background accompaniment as was needed for the current work. Starting with the same phrases generated in the chaos world, loops and reiterative methods were applied to make them persist or at least, sit still a little better.

***Love in the Asylum* | Michael McNabb**

Love in the Asylum is an expression of the calculated insanity and spontaneous magic that one must sometimes call upon in order to live in this strange universe of ours. It features an orchestra of familiar instrumental and vocal sounds, new sounds drawn from the imagination, and above all, sounds that fluidly shift between the two.

The work, which critic Paul Lehrman called “one of the most devastatingly beautiful pieces of electronic music I have ever heard”, is built of two psychological layers. Foremost is a layer of cheerful confidence and exuberance, which is colored and occasionally overpowered by a darker emotional undercurrent.

Love in the Asylum was created at CCRMA on an NEA grant using the Samson Box digital synthesizer designed by Peter Samson. The CD and streaming version is a stereo mix of that 4-channel original. Tonight’s version was resynthesized in high-resolution audio in 2010 using Samson Box emulator software created by Bill Schottstaedt, and is presented in its original surround configuration.

***The Days, The Conversation and The Dallas Thermidor* | The Sonification Ensemble**

This is the debut performance of an ensemble that’s happening this quarter where we develop and refine a new research model centered on collaborative “ensemble sonification” of temporal data (a group putting sound into data). We’ll play two data sets: the flow of a conversation between two people and an example of daily summer heat extremes predicted through 2100 for a location centered on Dallas, Texas. The latter combines several runs of the same climate model with different initial conditions to create an ensemble of predictions, all played together.

***Little House* | Logan Kibler**

Little House is a pop song written for Logan’s artist project Lokii. It depicts two people building a solid relationship together through the metaphor of building a home. The song was written, produced, and mixed by Logan. The visuals are provided by University of Michigan Performing Arts Technology BFA graduate Jackson Roth, and show a time lapse of a digitally drawn cabin in the woods with AI enhancement post processing.

***Two Carrier FM Improvisation* | Madalyn Merkey**

This performance is centered around a real-time synthesis computer instrument that I began developing in 2012 at Mills College under the creative supervision of John Bischoff, Maggi Payne, and Roscoe Mitchell. Through its self-driven timbral architecture, I have set out to create a unique synthetic voice that expresses a dynamic range of emotions beyond what I can access through my body, voice, or language.

***Dinosaur Music* | Bill Schottstaedt**

Jonathan Berger writes good music; I should do likewise. Unfortunately my ideal, which I believe this music embodies, is to write correct, self-effacing, studious music; music so bland, pre-planned, and homogenous as to disturb not even the most delicate taste. As is the norm these days, I have created my musical language out of pure mathematics and weather maps. It is a language so far ahead of its time that I don’t understand it myself. I call this *Dinosaur Music* not to offend Mr. Berger but to allude to the well-known attributes of dinosaurs as seen in films like *Reptilicus* and *Monster X*: they appear suddenly, explanations are sketchy, movements are jerky, and the end is violent.

***Tickle That Dinosaur!* | Fernando Lopez-Lezcano**

The effects of tickling a Dinosaur are, well, exciting, unpredictable and, most of the time, downright scary. We are going to do that anyway, ignoring the obvious dangers, just for the fun of it.

This piece is part of the *Dinosaur Songbook*, an ongoing project of short and long-form realtime performances using analog and hybrid modular synthesizers (and exotic instruments like pianos or music boxes). Lots of big and microscopic fader and knob movements, button presses and more, with many synthesis techniques mixed together, lots of rehearsals and planning, and a lot of luck. Mezosoic mayhem.