

Liam Elliot

liamelliottmusic.com | ldelliot@princeton.edu | (609) 598-5549

EDUCATION

Princeton University PhD in Music Composition, defended December 13, 2024 Supervised by Daniel Trueman Dissertation: “Worldmaking in Music, Sound Art, and Instrument Design”	2018–2024
University of Cambridge, Emmanuel College MPhil in Music Studies – Composition Supervised by Richard Causton, Joseph Phibbs, and Jeremy Thurlow	2014–2015
Acadia University BMus – Composition Supervised by Derek Charke and Dinuk Wijeratne	2010–2014

RESEARCH INTERESTS

- Hybrid acoustic/electronic signal processing in instrument design
- Digital instrument design
- Electronic music techniques
- Spatialization and unconventional audio playback systems
- Nature and place in the audio arts
- Physical computing

TEACHING EXPERTISE

- Acoustic, electroacoustic, and electronic composition
- Electronic and computer music history and practice
- Electronic music performance and improvisation
- Ensemble electronic performance
- Applied audio electronics and coding
- Recording, mixing, and production
- Sound art
- Acoustics

COURSES TAUGHT

Lecturer/Post-Graduate Research Associate
Princeton University

2025

Handmade Sound Practices

Explores the creation of DIY audio-based artmaking practices. Classes will combine hands-on experiential learning with creative presentations from faculty, students, and multidisciplinary guest artists. I am designing this seminar with joint sponsorship from the Department of Music and the Council on Science and Technology.

Transformations in Engineering and the Arts

- Instructor responsible for the sound unit of the course
- Topics include acoustics, synthesis, sound art, and audio programming, as well as coding in p5.js, Max/MSP, and Arduino

Undergraduate and Graduate Lesson Instructor
Princeton University

2020–2024

Composition and Electronic Music Lessons

- Composition lesson topics include harmony, counterpoint, arranging for chamber ensembles, orchestral scoring, engraving, songwriting, and film scoring
- Electronic music lesson topics include modular and digital synthesis, studio recording techniques, and audio production in Ableton Live, Logic, and Reaper, as well as composition and production in a wide range of electronic music idioms.
- Students have gone on to graduate studies at institutions including UC Berkeley, NYU Steinhardt, the Royal Conservatoire of Scotland, and the Peabody Institute

Assistant in Instruction
Princeton University

Transformations in Engineering and the Arts

2023–2024

- Designed and delivered lectures on acoustics, synthesis, sound art, and audio programming
- Taught coding in p5.js, Max/MSP, and Arduino
- Trained students in hands-on skills including physical computing, circuit design, laser cutting, 3D printing, and soldering
- Mentored student creative projects from concept to realization

Musical Instruments, Sound, Perception, and Creativity 2021–2023

- Taught classes on topics including acoustics, psychoacoustics, and instrument design
- Led labs exploring related topics through hands-on experimentation
- Refined existing curriculum and created a new lab on analog electronic sound

Computer and Electronic Music Composition 2021

- Assisted with classroom teaching on topics in composition, synthesis, and production
- Supported student creative projects from concept to realization in genres including EDM, hip-hop, house, pop, and musique concrete.

Music Theory Through Performance and Composition 2020

- Taught classes on tonal harmony, counterpoint, and composition
- Mentored student composition projects

Computer and Electronic Music through Programming, Performance, and Composition 2019

- Delivered lectures on video programming in Max/MSP
- Assisted with classroom teaching focused on ChuckK and Max/MSP
- Worked with students individually and in groups to support creative coding projects

**Teaching Assistant for Composition and Theory
Acadia University**

Music Theory 2012–2014

- Led weekly theory workshops on topics in tonal harmony, counterpoint, and atonal theory

Musicianship Lab 2012–2014

- Tutored students on musicianship skills including sight singing, ear training, and piano

Introduction to Composition 2012–2014

- Provided feedback on composition projects
- Assisted in organizing group critiques, guest visits, and composition recitals

ACADEMIC SERVICE

Associate Director of the Princeton Laptop Orchestra (PLOrk) 2021–present

- Led rehearsals and performances
- Taught students technical skills including analog audio electronics, networked performance, video manipulation, and performing with graphic scores
- Max/MSP skills taught include Jitter, digital synthesis, and live audio manipulation
- Mentored composers in developing code for creative projects

Music Mentoring Program 2022–2024

Mentored individual students from a wide variety of backgrounds in areas including:

- Navigating Princeton as a first-generation university student
- Understanding graduate and undergraduate student requirements, resources, and opportunities
- Developing an artistic career, approaches for artistic projects, and mentoring skills

Faculty Chaperone for Undergraduate Travel 2024

- Co-lead an undergraduate trip to London, UK with 15 students in the *Body Builders: Living Systems as Art Media* freshman seminar class at Princeton University
- Facilitated visits to artist studios and galleries
- Supported student safety throughout the trip

Graduate Student Committee 2024

- Represented the needs of the graduate student community in the Princeton University Music Department through meetings with the faculty.

Guest Speaker 2022

Invited as a guest speaker at an Art and Science dinner talk hosted by the Princeton University Council on Science and Technology. Shared an artist's perspective on collaborative work between fine arts and the sciences.

Composition Colloquium Series 2019-2020

Collaboratively curated and organized a series of talks in the Princeton music department from a diverse range of artists. My guests included Meredith Monk and Zosha Di Castri.

HackPrinceton Guest Judge 2019

Invited as a guest judge and mentor at biennial hackathon event with over 600 Princeton undergraduate students creating software and hardware products.

SELECTED RECENT PROJECTS

- Resin** 2021–2025
Received a Canada Council for the Arts: Concept to Realization grant to support the completion of a string feedback resonator instrument I have been developing for the last four years. *Resin* uses hybrid acoustic/electronic signal processing to create sounds ranging from subtle sympathetic resonance to complex feedback. I am recording an album with artists from across Canada and the US that explores the collaborative nature of the instrument.
- Fallow** 2024
Premiered by the JACK Quartet and composed using HEJI notation and just intonation. The performance is accompanied by video projection from a custom Jitter patch.
- Glimmer** 2024
Designed, programmed, and performed a live-video improvisation instrument for music by Dmitri Tymoczko. Premiered in Princeton with an additional performance in Rome at the World Congress of Philosophy.
- Breathe/Chime** 2024
Performance/installation premiered by the Princeton Laptop Orchestra. Used RNBO to develop a web-based instrument for audience use. Built in collaboration with researcher David Borts from Princeton University's Computational Imaging Lab.
- Carbon/Silicon** 2024
Premiered by Sō Percussion. The piece explores hard panned stereo rhythms and performative amplification changes through a custom Max/MSP patch.
- Sublimation** 2024
Premiered by Alkali Collective with the support of a commissioning grant from the Canada Council for the Arts. The piece uses a partially graphic score and spectral techniques, beginning with high partials that later reveal an underlying melody.
- Sonic Cellar** 2024
Performances with Jeff Snyder (modular synthesizer) and Jacqui Kerrod (harp). Performed using custom improvisation-focused sequencers developed in Lua for the Norns platform.
- Adulthood** 2022–2024
Album recording and duo performances with HENDRA. Performances in Alberta, Nova Scotia, and the UK including *Real Fake Birds*, a birds flocking algorithm based instrument. Recorded with Juno Award-winning producer Dan Ledwell.

RESIDENCIES AND FESTIVALS

Musician in Residence 2017, 2020, 2021, 2023

Banff Centre for Arts and Creativity

- Live show development for performances with singer-songwriter HENDRA
- Collaboration with poet Susan McMaster and violist Sarah McCabe
- Performance with the International Contemporary Ensemble and other musicians
- Field recording and collaborative composition and improvisation

Sound Atlas Festival 2023

Calgary, Canada

Composed and performed *Winter Music* and *Oceans*, two pieces rooted in field recordings from Banff and Halifax and featuring poetry by Monica Kidd. Performance included improvisation, video projection, and *Sharc*, a custom quad panning software instrument. *Winter Music* has also been recorded by India Gailey on their album *Lucid* and performed by several musicians internationally.

48h Neukölln Festival 2018–2022

Berlin, Germany

- Light-reactive oscillator installation/instrument
- Improvised electronic live performance including custom sequencing software
- Sound sculpture creating a hybrid audio/visual 1:1 scale map

RECENT AWARDS AND HONOURS

Exemplar Mentor Award 2024

Princeton University McGraw Center for Teaching and Learning

Recognizes a teacher/mentor who embodies the characteristics of “empathy, availability, enthusiasm, commitment, and a willingness to go ‘above and beyond’ to help mentees succeed in their professional, academic, and/or personal goals.”

Dean’s Completion Fellowship 2024

Princeton University Composition Department

Awarded to one composition student per year to support dissertation completion before awarding the position of Postgraduate Research Associate.

SKILLS

Recording and Production

- Studio, live, and field recording technique
- Sound design and synthesis
- Mixing and production

Software

- Recording/production in Logic, Ableton Live, and Reaper
- Coding in Max/MSP, Lua, p5.js, Arduino, and ChuckK
- Notation in Dorico, Sibelius, and MuseScore

Composition

- Notated acoustic and electroacoustic music including solo, chamber, and large ensemble
- Fixed, improvised, and generative electronic music
- Music for visual media
- Songwriting and arranging
- Software and modular synthesis
- Just intonation

Electronics and Hardware Design

- Signal processing with analog electronics
- Circuit and PCB design
- Soldering
- Testing and debugging
- 3D printing, laser cutting, and CNC