

**M**Manhattan  
School of Music

MSM SEMINAR CONCERT

**ALTERNATE  
TUNINGS AND  
ACOUSTICS**

**Michael Harrison** (MM '15), Director

Featuring **Bergamot Quartet**

FRIDAY, APRIL 25, 2025 | 7:30 PM

ALAN M. AND JOAN TAUB ADES PERFORMANCE SPACE

This year's performance season has been inspired by a unifying theme: *Humanity in Harmony: Rituals, Resistance, and Resilience*. We hope during this election year, the biggest in human history with over half the world's population having the opportunity to vote in 72 countries, that this theme reflects the power of the arts to unite us even in moments of discord and differences. The collective experience of collaboration – creating together – reminds us that even in our differences we can find common ground, stand up to tyranny and oppression, and elevate our work as artists to fulfill the hope and promise of a better tomorrow.

**James Gandre**, President

**Joyce Griggs**, Executive Vice President and Provost

Faculty and Administration of the Artistic Planning Committee



**Council on  
the Arts**

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# ALTERNATE TUNINGS AND ACOUSTICS

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## PROGRAM

MARK SABAT  
(b. 1965)

*Divide*

**Emily Green**, voice  
**Alaina Ferris**, voice  
**Sun Lee**, keyboard  
**Ked Adams**, bassoon

GABRIEL ORDAS

*Harmonic Harmonics* (World Premiere)

**Ariana Mascari**, viola  
**Gabriel Ordás**, violin

YU XU

*Parallel* (World Premiere)

**Ariana Mascari**, viola

ANGELA TSE

*Comma* (World Premiere)

**Ariana Mascari**, viola  
**Hannah Thill**, viola

ZACHARY KERN

*Over Two Dozen* (World Premiere)

**Zachary Kern**, soprano saxophone

GYÖRGY LIGETI  
(1923–2006)

*Sonata* for Solo Viola (1994)

I. *Hora Lunga*

**Ekaterina Eibozhenko**, viola

*Intermission*

ROSS BELLO

*At First Light* (World Premiere)

**Ross Bello**, digital piano (La Monte Young's

*The Well-Tuned Piano* tuning)

DIDI GU

*On The Edge* (World Premiere)

**Sun Lee**, digital piano (La Monte Young's

*The Well-Tuned Piano* tuning)

MAYA ESTHER BORISOV

*Fleurescence* (World Premiere)

**Bergamot Quartet**

ALEX HOWARD

*The Lamb Bleats At Evenfall* (World Premiere)

**Bergamot Quartet**

ALVARO AMAT

Miniature for Strings in Just Intonation (World Premiere)

**Bergamot Quartet**

MARCO CATELLA

String Quartet No. 2 (World Premiere)

**Bergamot Quartet**

## ABOUT BERGAMOT QUARTET

Bergamot Quartet is fueled by a passion for exploring and advocating for the music of living composers with creative programming, community-oriented audience building, and frequent commissioning. The quartet is in high demand as interpreters and co-creators of new music, having premiered hundreds of works by students of all ages and developed numerous significant new pieces with composers at the forefront of contemporary concert music. They maintain a full season each year of concerts ranging from DIY events to appearances at major venues.

Bergamot's 2025 season includes a concert at National Sawdust celebrating the release of Samuel Torres's *A Dance for Birds*, composed for Bergamot and Torres' Latin jazz sextet; residencies with Tulane University and Manhattan School of Music; a return to the Raritan River Music Festival; a collaboration with Cantori New York; a performance on The Village Trip series in Greenwich Village, where they will premiere Samuel Adler's 11th and Louis Karchin's 4th string quartet. They have recently launched "Project Resonance" with composer/performer Dan Trueman, a multi-tiered project which will foster the creation and performance of new works for Bergamot playing a set of hardanger instruments (traditional Scandinavian 9-stringed folk instruments).

As educators, Bergamot will serve on faculty this summer at New Music On The Point, Wildflower Composers Festival, and Arts Letters and Numbers Creative Music Intensive. They also operate the monthly concert series "Bergamot Quartet Extended" as a medium to showcase their many inspiring collaborators and present new work.

Based in New York City, Bergamot Quartet comprises Ledah Finck and Sarah Thomas, violins; Amy Tan, viola; and Irène Han, cello. Bergamot Quartet was the inaugural Graduate String Quartet in Residence at the Mannes School of Music 2020–2022, where they were mentored by the JACK Quartet.

# PROGRAM NOTES

## *Comma*

### **Angela Tse**

The fact that fascinates me the most from the Tuning Systems & Acoustics course is that a “perfect” tuning system does not exist. When you attempt to preserve the perfection of one aspect, you will have to sacrifice the perfection of another accordingly. In Pythagorean tuning, the circle of fifths, a 3:2 ratio of frequencies (702 cents), will not close. After completing the circle of fifths, a Pythagorean comma is reached, looking like “something went wrong.” Accordingly, the internal proportion of fifths in a closed circle of fifths won’t reach the perfect 3:2 (or 702 cents). The system that “perfectly” closes the circle of fifths, such as the equal temperament, gives an approximation of the perfection of the fifths—700 cents— but still does not equal 702 cents.

“Numbers rule the universe,” said Pythagoras. Perhaps of course we want everything to be harmonious and perfect, but then there would be no possibility or room for creation or variation. Absolute harmony and perfection are pursued, but are also equivalent to non-existence. Harmony and proportion are the components of the world as well as irrationality and uncertainty, fortunately and unfortunately. Of the comma that keeps this circle of five degrees from closing, the increase of entropy, the presentation of parity non-conservation, the moment of symmetry breaks in the early period of Genesis... This also directly disproves determinism when the comma exists. And it could be uncertainty, aside from predetermination, that allows for variation and creation. Perhaps perfection is not the most fascinating thing—nor imperfection. Uncertainty exists through the imperfection that “commas” the perfection.

*—Angela Tse*

## **Sonate for solo viola (1994)**

### **György Ligeti**

1st movement Hora lungă: It evokes the spirit of Romanian folk music which, together with Hungarian folk music and that of the Gypsies, made a strong impression on me during my childhood. However I do not write folklore or use folkloristic quotations, it is rather allusions which are made. Hora lungă literally means “slow dance” but in the Romanian tradition this is not a dance but are sung folk melodies (in the northernmost province of the country, Maramureş, in the centre of the Carpathian mountains), nostalgic and melancholy, richly ornamented. There is a striking similarity to the “Cante jondo” in Andalusia and also folk music in Rajasthan. Whether this has something to do with the Gipsy migration or is a common, old indo-european, diatonic melodic tradition is hard to decide. This movement is played exclusively on the C-string and in it I make use of natural intervals (pure major third, pure minor seventh and also the 11th harmonic).

– *György Ligeti, Preface to Sonate for solo viola*

# ABOUT MANHATTAN SCHOOL OF MUSIC

Founded as a community music school by Janet Daniels Schenck in 1918, today MSM is recognized for its 1,025 superbly talented undergraduate and graduate students who come from 54 countries and nearly all 50 states; its innovative curricula and world-renowned artist-teacher faculty that includes musicians from the New York Philharmonic, the Met Orchestra, and the top ranks of the jazz and Broadway communities; and a distinguished community of accomplished, award-winning alumni working at the highest levels of the musical, educational, cultural, and professional worlds.

The School is dedicated to the personal, artistic, and intellectual development of aspiring musicians, from its Precollege students through those pursuing doctoral studies. Offering classical, jazz, and musical theatre training, MSM grants a range of undergraduate and graduate degrees. True to MSM's origins as a music school for children, the Precollege Division is a professionally oriented Saturday music program dedicated to the musical and personal growth of talented young musicians ages 5 to 18. The School also serves some 2,000 New York City schoolchildren through its Arts-in-Education Program, and another 2,000 students through its critically acclaimed Distance Learning Program.

## Your gift helps a young artist reach for the stars!

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## Land Acknowledgment

We want to acknowledge that we gather as Manhattan School of Music on the traditional land of the Lenape and Wappinger past and present, and honor with gratitude the land itself and the people who have stewarded it throughout the generations. This calls us to commit to continuing to learn how to be better stewards of the land we inhabit as well.



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