



# Musical Institute of Technology

Photographs of the MIT Music Program by Jon Sachs



**An extraordinary music program within  
the world's finest technical institute**

The images in this book are a small selection from *Musical Institute of Technology* — an ongoing series documenting MIT's Music Program, by photographer Jon Sachs, in collaboration with the Communications Program, Office of the Dean, MIT School of Humanities, Arts, and Social Sciences.



## Contents

Music Program Overview 2

Chamber Chorus 4

Chamber Music Society 12

Concert Choir 26

Emerson Program 36

Festival Jazz Ensemble 46

Gamelan Galak Tika 54

Rambax, Senegalese Drum Ensemble 60

Symphony Orchestra 70

Vocal Jazz Ensemble 80

Wind Ensemble 84

Acknowledgments 90

*Musical Institute of Technology*

Images from the MIT Music Program

Photographs by Jon Sachs

## Music Program Overview

MIT's renowned Music program is made up of three curriculum areas — Music Composition, Music History and Culture, and Music Performance — each of which offers courses in classical, jazz, popular, and world music. All three areas are crucial to MIT's music-making and musical scholarship.

MIT Music provides classes that range from beginner to conservatory-level, and in any given year nearly half of all undergraduates are engaged in the program. Many MIT students earn a major, minor, or concentration in Music, and for thousands of MIT alumni, music is a lifelong endeavor.



## Composition/Theory

Students receive training in composition in many genres, including avant-garde, classical, electronic, and jazz. Advanced students participate in a seminar, which includes opportunities for informal performances by professional ensembles. The theory curriculum gives students a solid grounding in the harmonic and contrapuntal techniques of tonal music, as well as contemporary practices in both classical music and jazz.

## History and Culture

MIT's music history and culture classes lay the foundations for understanding how music has been created, performed, and heard over time and across civilizations. Popular and classical, Western and world music are all areas of inquiry.

## Performance

The many options for vocalists and instrumentalists (shown in this book) are led by professional musicians. Classes and groups are open by audition to all MIT students, both graduate and undergraduate, regardless of major.



## MIT Chamber Chorus

*William Cutter, Music Director*



Chamber Chorus is an ensemble of musically-advanced MIT student singers, who represent many disciplines at the Institute.



“The Music department is the best kept secret at MIT. This quietly brilliant faculty pushed me and encouraged my growth as a musician, and I developed my most meaningful relationships with the professors there.”

— Edan Krolewicz '14



## MIT Chamber Chorus

MIT's 30-member Chamber Chorus premieres new works, performs with other music groups, and collaborates with theater faculty on fully-staged chamber opera productions.

### BELINDA

Shake the cloud from off your brow,  
Fate your wishes does allow;  
    Empire growing,  
    Pleasures flowing,  
Fortune smiles and so should you.

### CHORUS

Banish sorrow, banish care,  
Grief should ne'er approach the fair.

### DIDO

Ah! Belinda, I am prest  
With torment not to be Confest,  
Peace and I are strangers grown.  
I languish till my grief is known,  
Yet would not have it guest.

— Excerpt from Act I, "Dido and Aeneas"  
Music, Henry Purcell; Libretto, Nahum Tate



## TECHNOLOGY AND HUMANITY

“The kind of technologies that people are building today, opposed to 20 years ago, is much more connected to how people interact in social aspects of our culture...

At first, computers were super technical. Now technology and humanity are deeply interlinked. It's actually really important for people graduating with a technical or scientific degree to be immersed in the arts because it's so much more relevant to today's products and innovations.”

— Eran Egozy '95; engineer, clarinetist, new media pioneer, and cofounder of Harmonix Music Systems, producer of Guitar Hero and Rock Band



## MIT Chamber Music Society

Marcus Thompson, Director



The 25+ ensembles in the Chamber Music Society are made up of students selected by audition to study classical chamber music and jazz combo literature. Guided by faculty coaches Marcus Thompson (director), David Deveau, John Harbison, Keala Kaumeheiwā, and Jean Rife, the ensembles perform each term.



“When you’re performing you’re in a totally different mental space... another reality. You have transcended your mind and whatever it is you are doing. In some ways, you prepare for it but you don’t feel responsible for it. It really is about something greater than yourself.”

— Marcus Thompson,  
Robert R. Taylor Professor of Music



“At MIT it is common to find students who are so musically talented they could thrive at conservatories, if that is what they chose to do.”

— Peter Child, Professor of Music, and Head, MIT Music & Theater Arts



MIT Chamber Music Society

“My MIT classes in music theory and history transformed my understanding of music—and deepened my relationship to the sciences.”

—Andrew Wang '11



## MIT Chamber Music Society

“MIT Music provides resources to us in a way I would have never imagined for a tech school; the opportunities they’ve made possible are a truly integral part of my experience here.”

— Austen Yueh '17





“Studying music teaches discipline, discernment, and problem-solving. It makes your mind more fluid and gives you the ability to shift perspective, to see the same thing from many angles.”

— Elena Ruehr, MIT composer





“It’s great to play with people who are committed to their music.  
It’s awesome knowing they all know how to do calculus as well.”

— Michael Chen '12





## MUSIC AND THE MIND

“Multiple studies link music study to academic achievement. But what is it about serious music training that seems to correlate with outsize success in other fields?”... Many high achievers who have musical training report that music opens up “the pathways to creative thinking. And their experiences suggest that music training sharpens such qualities as: Collaboration. The ability to listen. A way of thinking that weaves together disparate ideas. The power to focus on the present and the future simultaneously.”

— from “Is Music the Key to Success?”  
Joanne Lipman, *New York Times*, 12 October 2013

# MIT Concert Choir

*William Cutter, Music Director*



The roots of the Concert Choir go back to the MIT Glee Club of 1884. In recent years, the acclaimed group has toured in Budapest, Vienna, and Lausanne.



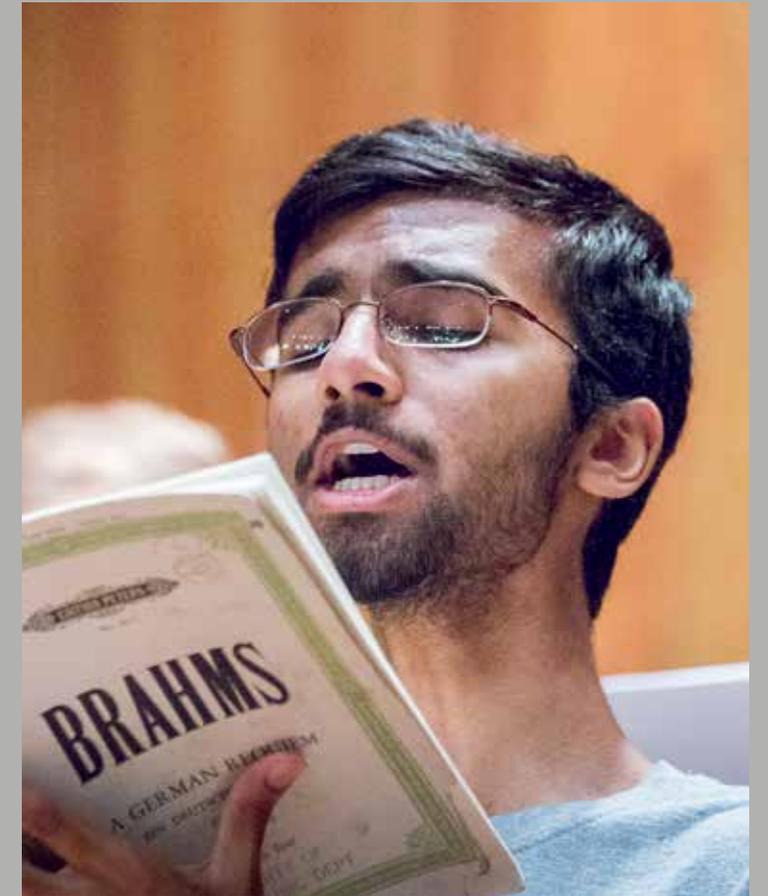
“MIT Concert Choir is one of the best experiences of my MIT career. I could see every single face in a classroom smiling. I could feel their passion, was energized by it, and always left happier than when I came. Bill Cutter is inspiring, talented, hilarious, and extremely cool!”

— Nahomy Hernández '14



“Setting aside time to immerse myself in music is one of the best decisions I’ve made here at MIT. I’ve gained an even greater appreciation for music through Concert Choir, and plan on singing for my entire time here at MIT.”

— Isaac Garza '17





### KEYS TO SUCCESS

About 80 percent of MIT's incoming students have a deep experience in the arts, most especially in music: some 75 percent of students now arrive on campus with musical training. For these students, MIT's combination of world-class science/engineering education and superb music training is one key to their creativity, success, and well-being. In a typical year, more than 2000 students are enrolled in music and theater arts courses, and Music is among the most popular of the Institute's 42 minors. After graduation, thousands of MIT alumni, across all fields, continue to perform and treasure music throughout their lives.

## MIT Emerson Program

Scholarships and Fellowships for Private Study

*Marcus Thompson, Director*



### **A conservatory-level music program at MIT**

The students in MIT's Emerson Program are among the most gifted of the Institute's student musicians. The program allows these students to advance musically, at a conservatory level, in tandem with their other academic studies.





“The Emerson Fellowship Program through MIT Music & Theater Arts has allowed me to study with one of the premier cello professors in Boston and perform annual solo recitals while pursuing a PhD in Oceanography. What a gift it has been to continue my musical studies at such a high level.”

— Ellie Bors, PhD Candidate,  
MIT/WHOI Joint Program in Oceanography



“MIT’s Emerson Scholarship Program gave me an unparalleled opportunity to grow.”

— Sherman Jia '06





MIT's music program was a "gigantic factor" in Dylan Sherry's decision to attend MIT, rather than a music school, he says. "Conservatory programs are transforming musically, but MIT is transforming personally, professionally, and also musically. No other science and engineering school is like it. Real music is happening here."

— from *MIT Spectrum*  
*Music Resounding, Spring 2013*



## MUSIC, MATH & SCIENCE

“Many scientists and engineers have a deep affinity for music. I suspect it’s because both science and engineering are rooted in trying to comprehend deep and hidden structures. The appeal of uncovering those hidden structures is part of what draws many who love science and engineering to music as well.”

— Alex Rigopulos '92 '94

*MIT music major, co-founder of Harmonix Music Systems*



## MIT Festival Jazz Ensemble

*Frederick Harris, Jr., Director*



Founded in 1963 by Boston jazz icon Herb Pomeroy, FJE performs four concerts a year — often premiering commissioned works — and collaborates with major jazz artists. Their programs feature works spanning the gamut of jazz history.

MIT Festival Jazz Ensemble

“The special environment provided by the Music Program at MIT is changing the world in its own way, one engineer at a time.”

— Ken Goodson '89, BS, MechE + Music; MS, PhD, MechE



MIT Festival Jazz Ensemble

“Being in FJE is like having a family at MIT.  
We’re a tight group with a tight groove.”

— Jenna McKown '10







## MIT Gamelan Galak Tika

*Evan Ziporyn, Director*



At the forefront of innovative, cross-cultural music since 1993, MIT's gamelan orchestra draws on musical traditions of Bali and the West. The group has performed at Carnegie Hall, Lincoln Center, BAM, colleges throughout the American northeast, and in Bali itself.

“What I like best about the world music offerings at MIT is the opportunity to truly immerse yourself in the culture you are learning about.”

— Dorian Dargan '11





## Rambax MIT Senegalese Drum Ensemble

*Lamine Touré and Patricia Tang, Co-Directors*

Founded in 2001, Rambax (pronounced Rahm-bach) is an ensemble dedicated to the art of sabar, a drum/dance tradition of the Wolof people of Senegal. MIT's sabar group has twice traveled to Senegal to study and perform.



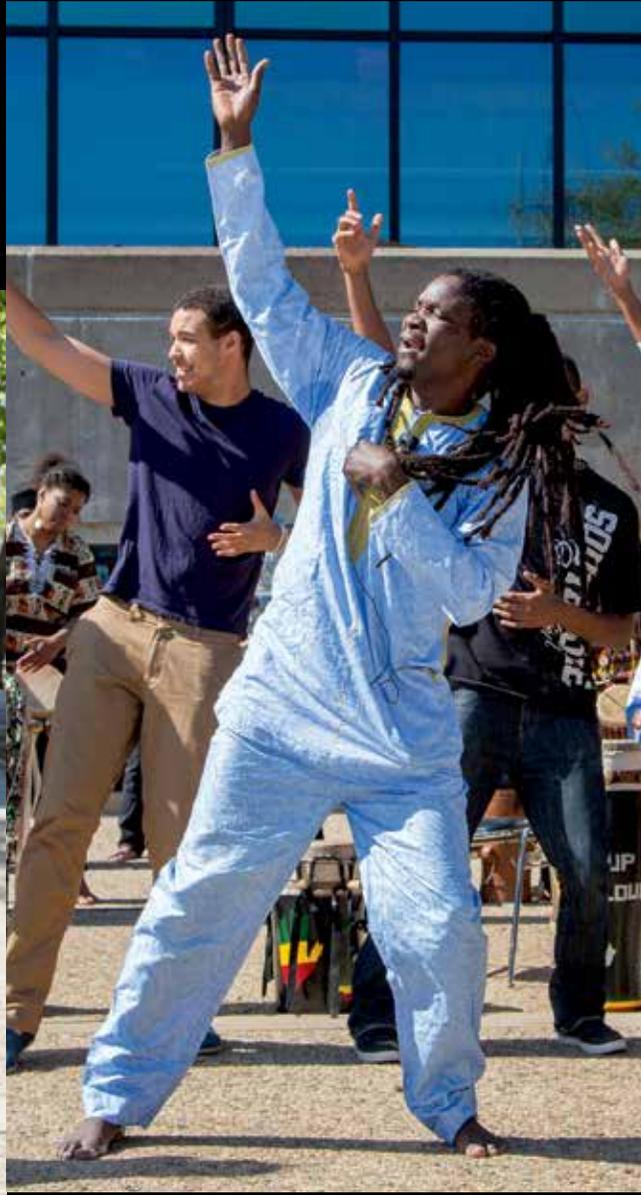
## Rambax MIT Senegalese Drum Ensemble



“Rambax MIT is more than a performance ensemble. Students are learning not only drumming; they’re learning about culture.”

— Patricia Tang, Co-director, Rambax

Rambax MIT Senegalese Drum Ensemble



## Rambax MIT Senegalese Drum Ensemble

“There’s something wonderful about being in a sea of 40 drummers playing in perfect unison. When you’re in rhythm with other people, it’s a feeling of community.”

— Patricia Tang, Professor of Musicology



## SOURCES OF INNOVATION

“Now more than ever, MIT students and faculty say, boundaries between disciplines are permeable. It’s not just music anymore,” reports *MIT Spectrum*. “It’s music and science. Music and engineering. Music and technology. We can consider music in concert with computer science, brain science, and linguistics.”

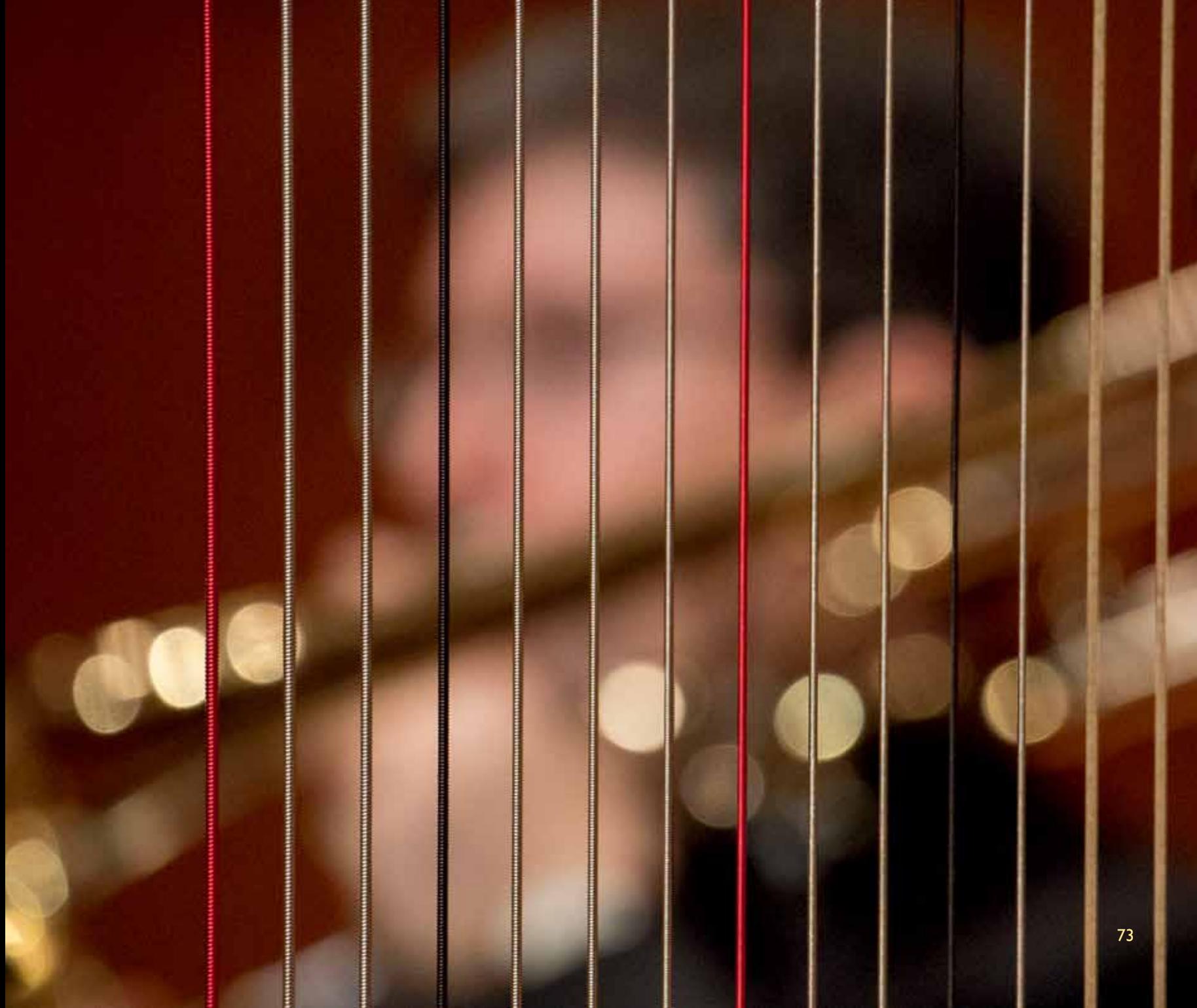
Michael Cuthbert, Associate Professor of Music and pioneer in digital musicology and tools, says “our students will be the ones to develop new theories of how people interact with technology as art, and art as technology. And, we’re no longer limited to the music of our geographical region,” notes Cuthbert. “People working on Chopin also listen to music from Indonesia or to Japanese pop. Here at MIT we have a campus environment that is stronger with diverse viewpoints.”



## MIT Symphony Orchestra

*Adam Boyles, Director*

The symphony, whose origins date to 1884, promotes music performance at the highest level of artistic excellence among MIT students by nurturing new works, young artists, and a lively audience. The students of the MIT Symphony Orchestra come from all fields at MIT, from Course 1 to Course 21, and their repertoire focuses on post-romantic masterpieces, twentieth-century classics, and new works by MIT composers.









## INSPIRING

“The arts have never been more integral to the life of MIT nor more deserving of our focus and attention. As an example, in keeping with MIT’s passionate tradition of learning-by-doing, we believe that our students and faculty in the performing arts deserve their own ‘laboratory,’ an inspiring space for experimentation, collaboration, apprenticeship, and performance.”

— *President Rafael Reif, MIT Spectrvm, Spring 2013 edition*



## MIT Vocal Jazz Ensemble

*John Harbison, Director and Coach*



Student instrumentalists and vocalists audition to join the VJE group, which performed a historic and electrifying version of the Institute's unofficial official song, "In Praise of MIT," for the MIT 150 Convocation. Arranged by Pulitzer-prize winning composer and Institute Professor John Harbison, VJE's jazz version opens with a short, decorous phrase (a nod to the 1922 original), then cuts loose. To hear the recording visit [mit.shass.edu/listen](http://mit.shass.edu/listen).

## MIT Vocal Jazz Ensemble

“I look back on my time in the Vocal Jazz Ensemble as one of the major, defining parts of my MIT experience. There are very few programs where it is possible to work so closely with such distinguished, prolific, and inspirational faculty.”

— Ben Bloomberg '11



## MIT Wind Ensemble

*Frederick Harris, Jr., Founder, Musical Director*

*Kenneth Amis, Empire Brass, Assistant Conductor*

The outstanding MIT student musicians in the Wind Ensemble perform four concerts each year, drawing from a literature that includes music from the 16th to 21st century. Since 2001, MITWE has also commissioned 20 original works and collaborated with Gunther Schuller, John Harbison, and jazz musicians from all over the world.



## MIT Wind Ensemble

“When I first came to MIT I left my trumpet at home — it was torture! Since then, I’ve been in the Wind Ensemble for seven semesters, and wishing I had time for other ensembles too!”

— Brandon Reese '09





“MIT’s music program saved me as a person. . . I was lucky enough to be in this special environment where I could study science and engineering at a serious level, and at the same time pursue music with great intensity. MIT provided an unusual environment where I could explore the intersection of both worlds.”

— Alex Rigopulos, cofounder of *Harmonix*, named by *Time* magazine as one of the 100 most influential people in the world





### Acknowledgments

Warm thanks to the MIT Music Faculty and students who have welcomed Jon Sachs into rehearsals and performances as he continues this photo series.

### Credits

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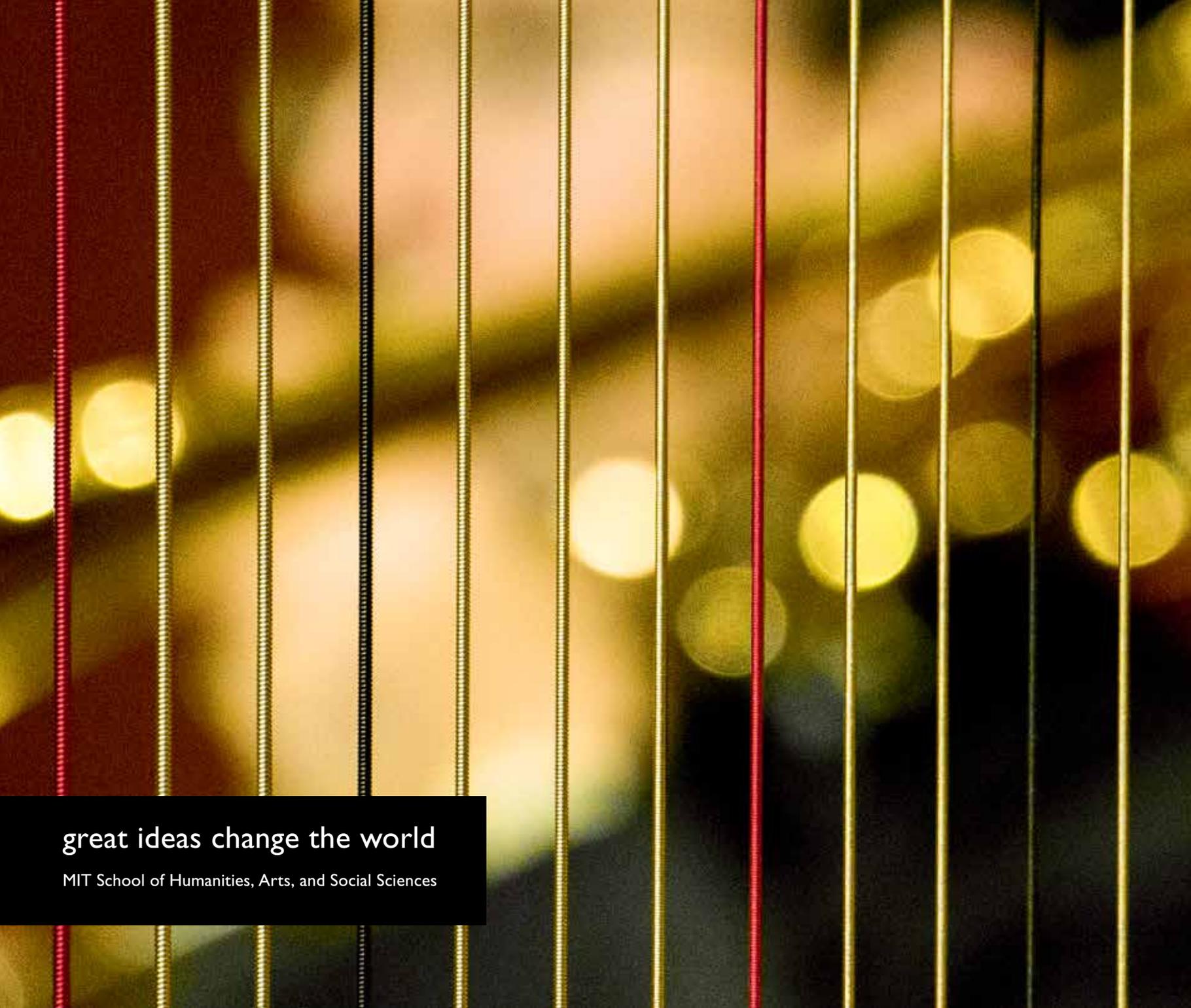
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great ideas  
change the world

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