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About OCO ...

The Olin Conductorless Orchestra (OCO)—an ensemble, minus conductor—features instrumentalists in leadership and collaborative roles. Dedicated to orchestral performance in the concerted spirit of chamber music, the orchestra forges individual participation, active listening, and group-motivation into performances that have established it as the only conductorless orchestra composed of engineers—in the world! With an essentially flat hierarchy that incorporates an ever-evolving sense of culture and cooperation as a working ensemble, OCO functions as a team of musicians—regardless of position—comprising students, faculty, and external guests, all dedicated to making good music with intensity, camaraderie, excitement, and humor.



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Olin Conductorless Orchestra



Sunday, February 19, 2017 The Great Hall at Cooper Union New York, NY



1000 Olin Way | Needham, MA 02492



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Serena Chen, Shreya Rangarajan, Maggie Rosner, Sarah Walters, Judy Xu, Nathan Yee, Lydia Zuehsow—violins Anne Ku—viola Jeremy Garcia, Duncan Hall, Kian Raissian, Emma Westerhoff—cellos Katie Hite, Eric Miller—flutes Jeremy Ryan—piccolo and flute Taylor Sheneman—oboe Meg Lidrbauch, Sunny Shroff—bass clarinets Diego Alvarez—pocket trumpet Diego Alvarez, Paul Nadan—tenor trombones Joe Sutker—bass trombone, percussion, and glockenspiel Emily Yeh—piano Joseph Lee—timpani Marie-Caroline Finke—glockenspiel and percussion *OCO, the Music Program, and Olin College of Engineering express deep appreciation and gratitude to David Greenstein (Director of Continuing Education and Public Programs at Cooper Union) for giving generously of his time and expertise. We also thank Mitchell Lipton (Vice President of Enrollment Services and Dean of Admission at Cooper Union) who has been a friend of Olin's for many years.*

This concert would not have been possible without the generosity of Cooper Union, the Great Hall, and its staff. The Cooper Union for the Advancement of Science and Art, founded in 1859 by Peter Cooper, prepares talented students to make enlightened contributions to society through outstanding academic programs in architecture, art, and engineering. The institution provides a challenging, interactive curriculum with distinguished, creative faculty and fosters rigorous, humanistic learning in a dynamic setting. We are honored to be performing in the Great Hall at Cooper Union!

OCO also thanks Carol Wu and Roger Shaffer of Roger's Piano in Natick, MA, for providing a Yamaha concert grand for last semester's concert at Powers Hall in Needham, MA. Roger's Piano has been in business for over 30 years and is dedicated to giving its customers the best musical experience possible.

A special shout-out to Paul Coveney (Admin. Asst. for Academic Affairs) and Joe Hunter (Asst. V.P. and Director of Communication) for their expertise and logistical help.

This program is supported in part by a grant from the Needham Cultural Council, a local agency, which is supported by the Massachusetts Cultural Council, a state agency.

Massachusetts Cultural Council





Sunny Shroff '18, from Nashua, New Hampshire, has been playing the bass clarinet for 8 years. He has performed with his middle and high school bands as well as in the NH All State and Chamber bands. In addition to music, he enjoys playing pool and watching TV shows on Netflix. His major is MechE.

Joe Sutker '18, from Boonton Township, New Jersey, is majoring in Engineering with a concentration in Computing. While he dabbles in many instruments, he is playing Bass Trombone and various percussion for OCO. While not playing instruments, he is singing, acting, spinning fire staff, playing videogames, and doing math. A lot of it.

Sarah Walters '17, is from Boulder, Colorado. Her major is engineering with a concentration in computing. She has been studying violin for thirteen years and piano for sixteen, and has performed with the Boston Philharmonic Youth Orchestra, the Mercury Orchestra, and with various all-state orchestras and chamber groups.

Emma Westerhoff '20, is from Scottsdale, Arizona. She has been playing cello for seven years, and has studied under both classical and fiddle instructors. She also plays upright and electric bass in jazz ensembles. With plans to study Electrical Engineering, Emma also enjoys baking, origami, and getting lost in the desert.

Judy Xu '18, is from Toronto, Canada. She is studying Mechanical Engineering at Olin, but likes coding and wants to go into Aerospace. She started piano in kindergaren because she liked the piano teacher. She started violin in middle school because ensembles are fun. She really likes watermelons and Chopin.

Nathan Yee '19, is from Alameda, California. He has played violin for 12 years and has performed in numerous orchestras, most notably, the Oakland Youth Orchestra. His major is electrical and computer engineering.

Emily Yeh '19, is from University Place, Washington. She has been playing piano for about 15 years. Her major is Engineering with a concentration in Computing. She enjoys elephants, watching people, and art. She is really bad at acting normal.

Lydia Zuehsow '19, from Harwood Heights, Illinois, has been playing violin for 14 years, 13 of them willingly. In her spare time, she enjoys sketching, pottery, and defying death as she leaps about on a patch of frozen H₂O. As a Robo:E, she will probably instigate the coming robot apocalypse.

The **Olin Conductorless Orchestra**

February 19, 2017

Program

Duetto in G major for Flute and Violin <i>Kathryn Hite, flute Shreya Rangarajan, violin</i>	C. P. E. Bach
Suite for Solo Cello III. Intermezzo e Danza Finale Kian Raissian, cello	Gaspar Cassadó
Rhapsody in Blue <i>Anne Ku, piano</i>	George Gershwin
Short Intermission (10 m	<u>in.]</u>
Waltz No. 2 from <i>Suite for Variety Orchestra</i>	Dmitri Shostakovich*
Overture to the <i>Magic Flute</i>	Wolfgang Amadeus Mozart*

Overture to the Magic Flute	Wolfgang Amadeus Mozart
An American in Paris	George Gershwin
Sing, Sing, Sing	Louis Prima/Benny Goodma

Mix and stir ...

OCO Navigators: Serena Chen and Eric Miller

Sibelius Transcribers: Duncan Hall, Katie Hite, Lucky Jordan, Anne Ku, Justin Kunimune, Joseph Lee, and Shreya Rangarajan

Adjudication and professional coaching: Thomas Hill (principal clarinet emeritus, Boston Philharmonic), Emileigh Vandiver (University of New Hampshire), Sam Solomon (Boston Conservatory), Charles Peltz (New England Conservatory), Jae Lee (concertmaster, Boston Philharmonic), Jeffrey Means (Berklee College of Music), Diana Dabby (OCO professor) Re-orchestrations: Diana Dabby

*Shostakovich scored this version of Waltz 2 for 2 flutes, oboe, 3 clarinets, bass clarinet, alto saxophone, 2 horns, 3 trumpets, 2 trombones, timpani, glockenspiel, and strings. Mozart wrote the overture to his opera *The Magic Flute* for 2 flutes, 2 oboes, 2 clarinets, 2 bassoons, 2 horns, 2 trumpets, alto and tenor trombones, bass trombone, timpani, and strings (16 violins, 6 violas, 4 celli, 2 double basses). An American in Paris calls for 3 flutes, piccolo, 2 oboes, English horn, 2 clarinets, bass clarinet, 2 bassoons, 4 horns, 3 trumpets, 2 tenor trombones, bass trombone, tuba, timpani, percussion, and strings (34 violins, 14 violas, 12 cellos, 8 double basses).

OCO has always had an unusual combination of instruments so these pieces have been re-orchestrated to suit the current instrumentation: 7 violins, viola, 4 cellos, 3 flutes, piccolo, oboe, 2 bass clarinets, pocket trumpet, 2 tenor trombones, bass trombone, piano, glockenspiel, timpani, and percussion.



Diego Alvarez '20, is from Kirkland, Washington. He started playing piano in 5th grade, and later picked up trombone, composition, guitar, and, most recently, trumpet. He plans to study either mechanical or robotics engineering.

Serena Chen '19, is from Plano, Texas. Her major is Engineering with Computing. She has been playing violin for 9 years. In her spare time, she enjoys drawing snails.

Marie-Caroline Finke '18, comes from Darmstadt, Germany. Her major is Electrical and Computer Engineering with an interest in sound and renewable energy. In OCO she is playing several percussion instruments.

Jeremy Garcia '19, is from Dallas, Texas, and is majoring in software engineering. He has been playing the cello for 13 years and has enjoyed playing with various all-state, chamber, and youth orchestras.

Duncan Hall '19, is from Camden, Maine. He has played cello in a variety of ensembles with peers and mentors, sharing the Berklee Performance Center stage in 2012 with Mark O'Connor and the other 2011 recipients of the Daniel Pearl Memorial Instruments. He is studying software engineering and development, and continues to pursue musical studies throughout his time at Olin.

Kathryn Hite '18, is from Temperance, Michigan, and is majoring in Engineering with a concentration in computing. She has been playing the flute for 11 years and has performed with the Toledo Youth Orchestra and other concert groups.

Anne Ku '19, from Palo Alto, California, has been an active musician for over 12 years. Her major is Electrical and Computer Engineering.

Joseph Lee '19, is from Huntsville, Alabama. He has been playing piano for 12 years and is vastly enjoying playing timpani in OCO. He is majoring in Electrical and Computer Engineering and spends most of his free time doing all sorts of different projects ranging from building harps to building remote control airplanes.



Meg Lidrbauch '17, is from Hamilton, Massachusetts, where she first discovered the wonder and mystique that is the bass clarinet. She has been playing bass clarinet for eight years. She is studying Environmental Systems Engineering with a particular interest in sustainability and renewable energy. She loves that the Olin Conductorless Orchestra gives her the opportunity to continue with music and grow as both an instrumentalist and a person.





Eric Miller '19, is from Granville, Ohio. He has been playing flute for 11 years in Honor Bands, orchestras, small ensembles, and now the OCO. He is majoring in Robotics, and is one of the OCO Navigators this year.

Paul Nadan '20, is from San Carlos, California. He began playing the euphonium in 5th grade, and picked up the trombone two years later. He plans to study aerospace engineering during his time at Olin.

Kian Raissian '20, is from Houston, Texas. He has studied cello since he was 5 years old. He has played in various ensembles including the Houston Youth Symphony, the Texas All State orchestras, the Houston Symphony, and the Helios quartet, which he founded. He is also a recipient of the Texas Young Masters Award and a winner of the Houston Young Artists Competition. Additionally, he was a finalist in the Houston Symphony League Concerto Competition and a soloist in a masterclass held by the Israeli Philharmonic. He is still technically undecided regarding his major, but is leaning towards a path in Engineering with Product Design.

Shreya Rangarajan '18, is from Baltimore, Maryland, and is majoring in Engineering with a concentration in Bioengineering. She started her performing arts training at the Peabody Conservatory and has been playing the violin, singing, and dancing for 15 years. When she's not involved in arts, she likes to socialize, play sports, and watch Netflix.

Maggie Rosner '20, is from Tacoma, Washington. She has played the violin for 9 years and while at Olin is planning to major in either Mechanical or Electrical Engineering with a focus in sustainability.

Jeremy Ryan '20, from Medical Lake, Washington, is majoring in Electrical and Computer Engineering. He began studying piano at age 5, and has since taken up flute, piccolo, mallet percussion, and accordion. Jeremy has been composing music for at least six years, including a piece entitled "Tension" that was performed by a concert band when he was in eighth grade. Outside of music, he enjoys unicycling, drawing, and digital art.

Taylor Sheneman '19, is from Highwood, Illinois. He has been playing oboe for 11 years, and piano for 15. Apart from music performance, he enjoys parkour, mixology, electronic music composition, and making stuff. Taylor is an Electrical and Computer Engineering major, because computers are going to be a great thing to understand during the robot apocalypse.