

# QC GLOBAL

QUEENS COLLEGE, CITY UNIVERSITY OF NEW YORK | FALL 2021



Queens College Provost and Vice President for Academic Affairs, Elizabeth Hendrey

Dear Colleagues,

I hope you and your families and friends are doing well while coping with the COVID-19 pandemic. I have been inspired by the tremendous resilience that our students and faculty have shown while continuing an empowering educational process. While the pandemic has challenged the normal way of life, it did not interfere with our desire to learn, discover, and grow. And thus, as we are

more optimistic about our lives ahead, I am delighted to share with you our 2021 *QC Global Newsletter*.

*QC Global*, through its portrayal of international collaborations and contributions, is reflecting one of the central values of the 2021–2026 Queens College Strategic Plan, that of Diversity, Equity, and Inclusion (DEI) which affirms that “the college and society benefit when we consistently and intentionally strive to become more diverse, equitable, and inclusive in how we think, treat each other, and function.”

*Elizabeth Field Hendrey*

**Dr. Elizabeth Hendrey**  
Provost and Vice President for Academic Affairs

This edition of the newsletter illustrates our colleagues' work around the world, from jazz performances and collaborations in Germany, to the use of artificial intelligence in eye research in Taiwan, or research on hamadryas baboons in Ethiopia. We are also delighted to share our faculty and students' study abroad experiences in Italy. We have continued to portray colleagues from all the schools, this time from the School of Music, Educational and Community Programs, Departments of Mathematics, Physics, Computer Science, and Anthropology. Much of this work was done pre-pandemic, and we look forward to the day when our faculty are able to return fully to their work around the globe.

I thank our faculty for sharing their work with us and our department chairs: Larissa Swedell, Alan Sultan, Alexander Ryba, Steven Schwarz, Michael Lipsey, as well as Lourdes Rivera for their support with developing this issue.

Please share with us updates on your international work so that we can include them in the future editions (email [mihaela.robila@qc.cuny.edu](mailto:mihaela.robila@qc.cuny.edu)).



## Study Abroad Experiences Queens College faculty and students in Perugia, Italy

In late June 2019, **Professor Edward Smaldone** led a group of Aaron Copland School of Music (ACSM) students in a course in music composition and performance, in Perugia, Italy. This program was the third such program offered in Perugia, in collaboration with the Morlacchi Conservatorio. It was also the seventh Study Abroad course Smaldone has led since 1999. (Two other colleagues from ACSM, David Schober and Emily Wilbourne, also led summer music courses).



Photo caption: Edward Smaldone (far right) and David Schober (far left) with students in Perugia, Italy in 2014

For this 2019 course, Smaldone brought a group of student musicians who played viola, saxophone, French horn, trombone, tuba, percussion, and cello, and a singer to the Umbrian town of Perugia—the capital of the region of Umbria, and a charming city that retains the beauty of its Renaissance origins. The city is on a hilltop, in an area that seems not to have a single square foot of level ground. Many of the “streets” are actually stone staircases, and there is even an ancient “Rocca Paolina,” a 16th-century fortress with an internal set of stairs, which allows one to

navigate various levels of the city, without wandering out into the hot sun. Perugia is also the home of one of Italy’s most famous jazz festivals, Umbria Jazz, which got underway just as our program was finishing on July 4!

The day they arrived, the city was celebrating its Renaissance roots with a street festival of hundreds of people dressed in 16th-century clothing, parading throughout the city. Over the course of three weeks, Smaldone supervised these students as they rehearsed, composed, arranged, and performed a series of three concerts (one each week), culminating in a final concert in the Conservatory Auditorium, where students performed a program entirely of new compositions they had created while in Italy. There was also a guest recital performed by Nico Giacalone, an ACSM alumnus, who was in Italy at the time, studying in Venice. The Americans were joined by a number of Italian students, who were recruited by our Italian colleagues Maestro Luca Saracca, professor of clarinet and chamber music at the conservatory and Maestro Roberto Todini, professor of saxophone.

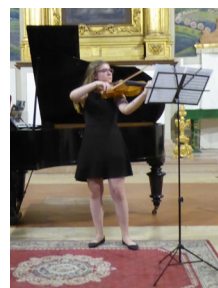
In addition to the concerts, the students toured the Roman ruins beneath the Cathedral, had a daylong visit to neighboring Assisi, and spent a day exploring Florence, including visits to the Accademia (to see Michaelangelo’s *David*), the famous *Galleria degli Uffizi*, and the *Duomo*, with its breathtaking dome, engineered by Brunelleschi. In between rehearsals, concerts and excursions, the students lived in the city (in Airbnb apartments), living like locals.

Over the course of these three weeks, the students explored Italy, their musical imaginations, and searched for the perfect pizza. It was a memorable experience for all.



Smaldone with students outside the Cathedral in Assisi, Italy, 2019

## Impressions from participating students in the Study Abroad program in Perugia, Italy, 2019:



Josie Rose performing in Perugia, 2019

**Josie Rose, Class of 2021:** “I had no idea what exactly I had signed up for when I spent my summer in Perugia with Dr. Smaldone studying music composition and arranging. I expected a fun vacation with a side of course work; what I got was much more than that. I experienced a new culture and made lasting connections with Italian students. I also discovered a lot about myself. I learned that I love composing music, and I have not stopped writing since that summer. It was incredibly inspiring to be so close to the roots of Western classical music. I also learned that it is possible to get sick of pasta! Studying abroad was my favorite part of my undergraduate work, and I would go back in a heartbeat.”

## Christopher Cavarretta, Class of 2021:

“The study abroad program was an amazing experience, and the course we took, I believe, is perfect for that style of study abroad. It allowed me to break from observation hours, papers, and projects to work only on our compositions in a fully immersive experience. While writing your own music, having that focus and guidance to work on our projects is really helpful. The way education works in Italy was very different than here and gave me a lot of insight into how the world functions. Some general highlights of the program include performing in the many churches



Smaldone with his students in Perugia, Italy in 2019

Continued on page 3

and settings across Perugia, working with students from the said conservatory, being able to be so attentive to our own projects, having the space to practice for hours and hours a day, and of course exploring a culture that I have never seen firsthand. The program itself was tremendous and allowed me to realize how important composition is to a musician. It was really an experience I would never trade away.”



Christopher Cavarretta performing (cello) in Perugia, 2019

**Chris Swift, Class of 2021:** “Studying abroad was a wonderful experience. It’s hard to articulate how being immersed in a different culture impacted me. It’s an education all its own. The little things, like the long strolling walks to the music school, or hearing a vibraphone player practicing in their house left an impact. Being thrown into a different culture has definitely made me appreciate it so much more. It’s also led to me being more curious about other music cultures—how people listen to, write, and live music in their day-to-day life. Also, the food was excellent, and I want to go back.”

**Adrianna Garcia, Class of 2021:** “As for my time abroad in Perugia, I would say it was one of my greatest experiences during my time at QC. Not only was the opportunity relevant to my course work, but even while taking a class, composing, and performing, we still had time to explore, learn about the culture, and meet new people from the other side of the world. I think some highlights would be experiencing, by chance, that history parade during our first day in Perugia. I learned a little bit of Italian while I was there and met some wonderful people (I miss Marco and Minha). Also being given the opportunity to perform in three venues in Italy is something I never thought I would be able to do, but thanks to the study abroad program, I am now able to say I have done exactly that. This study abroad opportunity was, I believe, the experience that gave me this “travel bug” and desire to explore and learn about other

cultures. It was an amazing opportunity I would not trade for the world, and I am glad we were able to have that experience before the beginning of the pandemic.”

**Brian Ross, Class of 2021:** “The time I spent in Perugia was at the perfect point in my music career. This trip was the perfect way for me to explore the world and learn more about myself as a musician and the music of Italy. Meeting all the new faces and the conservatory over there and being in the new area was just so exciting and beautiful! I even became a regular at a café where I would always get the best cannoli! Being in a new place also opened up my mind to writing new styles of music and in new ways. It was very stressful, yet exciting, since we had to write multiple pieces and arrangements within three weeks. I wrote two original compositions during my time there in such a small time frame and those are still two of my favorite pieces I’ve ever written! Even though it was very hot almost every day, the experience I had was unforgettable, I would give anything to go back there and take the program all over again; it was one of the best experiences of my life!”

## Faculty Global Experiences Social Sciences Larissa Swedell, Anthropology

Larissa Swedell teaches biological anthropology and primatology in the Department of Anthropology at Queens College and has been engaged in international collaborative field research on baboons in Africa for over 25 years. In 1996, she founded the Filoha Hamadryas Project, now co-directed with Professor Shahrina Chowdhury of Brooklyn College, which focuses on the behavior, ecology, reproduction, and endocrinology of a population of wild hamadryas baboons inhabiting the lowlands of the Rift Valley in central Ethiopia. This field site, the Filoha outpost of Awash National Park, is the only location in the world with habituated and individually identified wild hamadryas baboons and has served as a research field site for several CUNY PhD students. The most recent set of analyses from this project was published in the *American Journal of Primatology* earlier this year and used data from satellite collars that Swedell fitted on adult male baboons with the assistance of Ethiopian collaborators and wildlife veterinarians from the

Smithsonian Institution. These analyses, led by CUNY PhD student Megan Henriquez, demonstrated that hamadryas baboons not only have a far larger home range size than previously thought, but that they have the largest home range known in any nonhuman primate.



Dr. Larissa Swedell in Ethiopia

Professor Swedell also conducts field research in South Africa, where she has collaborated with researchers at the University of Cape Town and the University of KwaZulu-Natal on a series of projects focusing on the behavioral ecology, parasitology, and endocrinology of a population of semi-commensal chacma baboons. The latest publication from this research, led by Chowdhury, is in press in the journal *Hormones and Behavior* and focuses on the effects of seasonality on the behavior and physiology of female baboons in the Tokai Forest just south of Cape Town. The results from this study suggest that the winter season in the austral climate of South Africa is an ecological constraint for the baboons and that anthropogenic climate change may threaten the survival of this and other wildlife populations.

The population of baboons that Swedell has studied in South Africa has also provided fodder for the study abroad course *Humans and Nature in South Africa* that she has taught through Queens College Study Abroad since 2011. In this course, students conduct independent research projects in which they explore the relationship between humans and the natural world, historically and today, with a specific focus on South Africa. Class discussion topics include nature conservation principles and practices, the causes and consequences of human-wildlife conflict, and real-life conservation challenges in South Africa, including big-game hunting, ivory poaching, wild cats as agricultural pests, and conflict between humans and nonhuman primates.



## Arts and Humanities

### Michael Mossman, Music

2021 was a very dry year for live musical collaboration. Restrictions on assembling in rehearsal spaces and travel brought most live international musical collaboration to a standstill. The invitation to direct a TV collaboration between the jazz orchestra from the German state of North Rhine-Westphalia and Spanish singer/songwriter/jazz trumpeter Andrea Motis was a pleasant surprise.



Michael in the WDR studio

While Germany was still essentially on lockdown, with hotels only open to essential business travelers and restaurants and gyms, etc. all closed, I was given documentation to allow me to enter Germany. We began rehearsals in the WDR studios in Cologne on April 6, 2021. Everyone was required to wear a mask when not playing. The studio was regularly aired out and screens were placed between instrumental sections and members of the orchestra, and I was given Covid self-tests to administer at home as well.

My work on this project began far in advance of our April rehearsal/recording sessions. The director arranges and/or composes music that allows the guest soloist to represent themselves and their music in its truest form, adapting the music to include an orchestra of 17 virtuoso jazz artists who work together as a unit for years, even decades. This ensemble regularly performs a diverse range of styles, from swing to Afro-Cuban jazz to jazz-rock fusion and beyond. Each member of the band is a committed ensemble player as well as a jazz soloist. They are not treated as the “backup band” for a “star.” The director brings guest soloist and ensemble together as equals in a jazz orchestral setting of the repertoire chosen for the project.

The choice of soloist and director is the job of the band manager, Arnd Richter. Andrea Motis, from Catalunya, is

connected with Brazilian music and often composes lyrics and sings in Portuguese. She also sings in Catalan, Spanish, and English. Because I have a long history of arranging jazz in so-called “Latin” styles and have worked with this ensemble many times, I was chosen to direct the project. I have known Andrea since she was a 14-year-old member of a youth jazz band from Sant Andreu, in Catalunya when I was a guest soloist with the group.

The next point of collaboration was the choice of repertoire. This involves the artist, her manager, the band manager, and myself, and such considerations as promoting a new song or album or producing new material. Another major consideration is how I can balance the primary role of the guest while creating music that features the power, color, and storytelling capability of the band and give each soloist in the band the opportunity to express themselves as individuals at some point in the program. Apart from utilizing the great resources the band presents, this approach also helps manage the emotional sensitivities of all the musicians, who perform much better when they feel valued!

Finally, the work involves collaborating with the production staff in the recording process to be certain of acoustic balances, workflow, time budgeting, and to troubleshoot any musical or logistical conflicts discovered along the way. In the end, we recorded ten pieces in the radio studio plus four for TV production.

I am delighted to share two links to view the finished versions of the songs in the project:

<https://www.youtube.com/watch?v=YBh6GS6iiA>

[https://www.youtube.com/watch?v=Z7lkw7p\\_ZQ4](https://www.youtube.com/watch?v=Z7lkw7p_ZQ4)



In the TV studio

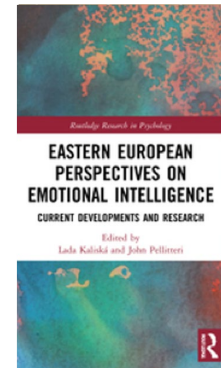
## Education

### John Pellitteri, Educational and Community Programs



John Pellitteri is a professor and former coordinator for the Graduate Programs in school and mental health counseling as well as the Chair of the Department of

Educational and Community Programs. Since he started at QC in 1998, his research has focused on Emotional Intelligence (EI) which is a theory of psychological abilities and traits related to the adaptive use of emotional information. As emotions are relevant to all human interactions, EI is applicable to various disciplines such as education, counseling, leadership, coaching, and business and has been found to be a positive resiliency factor associated with well-being, interpersonal relationships, and academic and career success.



Pellitteri's international research presentations started in 2007 at the First International Congress on Emotional Intelligence in Malaga, Spain and at later

congresses in Santander, Spain (2009) and Opatija, Croatia (2011). In 2012, he co-founded the *International Society for Emotional Intelligence (ISEI)* with the previous congress chairs and has served as the organization's president since then. ISEI is a non-profit scientific and educational organization dedicated to the development and advancement of EI on a global level. It currently has members from over 30 countries, offers professional certifications in EI, and provides a network for scholars, researchers and educators to collaborate. ISEI took over the International Congress series and Pellitteri served as the chair for the 4th International Congress in New York in 2013. Subsequent congresses were held in Buenos Aires, Argentina (2015), Porto, Portugal (2017) and Perth, Australia

(2019). Future ISEI congresses are planned for Palermo, Italy (2022) and Moscow, Russia (2023). Pellitteri has presented at each of these conferences and has been invited to present EI workshops in other countries such as Poland, Lithuania, Slovakia, Bulgaria, Italy, and Mexico and online presentations/ workshops in Ghana, Russia, and Pakistan. He was also invited to give a TEDx talk in Lausanne, Switzerland.

His numerous research collaborations have included conceptual and applied studies with colleagues in various countries that examine EI in those respective cultures. These co-authored studies include EI as it relates to psychopathology symptoms in Turkish and American university students, Asian-Americans and help-seeking behaviors, academic success with Pakistani management students, cyber-bullying with adolescents in Spain, anxiety and self-esteem variables for adolescents in Slovakia, and teacher training with Polish pre-school and nursery school teachers. His co-edited book (with Lada Kaliska), *Eastern European Perspectives on Emotional Intelligence: Current Developments and Research* was just recently published by Taylor & Francis this year and highlights current research from seven Eastern European countries.

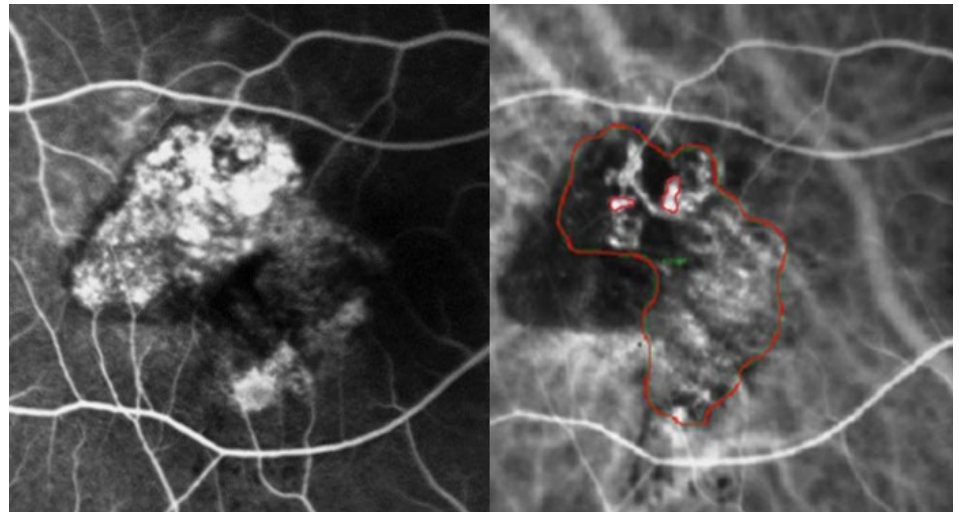
Current research efforts focus on using creative arts to teach and develop EI. Future studies plan to focus on assessment issues and the importance of considering cultural context and language in the development and measurement of adaptive emotion abilities. While emotions are universal and can be an inherent bond between all global citizens, it is important to explore culture-specific adaptive factors as these represent the new frontier in the emotional intelligence field.

## Math and Natural Sciences Chialing Tsai, Computer Science



Chialing Tsai is an associate professor in the Department of Computer Science. Before joining Queens College, she was given the opportunity to

return to her homeland Taiwan to teach at the National Chung Cheng University



Tsai and her graduate students in Taiwan developed deep learning models for early diagnosis of polypoidal choroidal vasculopathy (PCV). The images are a pair of FA (left) and ICG (right) images showing PCV. ICG serves as the gold standard for diagnosing PCV, outlined in red, but FA is the imaging modality for routine check-up, which often leads to misdiagnosis of PCV.

(CCU) for several years as an assistant professor. During her stay in Taiwan, she initiated the long-term collaboration with several national institutions, focusing on artificial intelligence in eye research. One of the projects is for diagnosis and treatment of polypoidal choroidal vasculopathy (PCV), which is a form of age-related macular degeneration and is prevalent in the Asian population. This is a joint project with CCU and Taipei Veterans General Hospital.

Age-Related Macular Degeneration (AMD) is a type of degeneration that gradually leads to significant loss of central vision. The wet form of AMD includes typical AMD with choroidal neovascularization (CNV) and PCV. Indocyanine Green Angiography (ICG) is the gold standard for diagnosing PCV, but Fluorescein Angiography (FA) is widely used for routine eye examinations and not every medical center has the ICG equipment to further confirm the condition of exudative AMD. If using only FA, clinicians can misdiagnose PCV as occult CNV for 90% of the cases, while the majority of the remaining 10% appears similar to classic CNV. For this reason, PCV can remain undetected in routine eye examinations for early treatment, leading to poor visual prognosis.

The focus of the joint project is to improve treatment of subretinal lesions using techniques in artificial intelligence. It is important that a clinician can confidently diagnose the condition of AMD as CNV or PCV using FA alone to avoid incorrect treatment. This project

has received continuous funding by the Ministry of Science and Technology in Taiwan, and one-year support for Tsai as a visiting professor at CCU to supervise graduate students and offer lectures in medical image analysis. So far, this project has resulted in three journal publications and is now taken to a different level by leveraging the technology in deep learning to overcome challenges of the high degree of variation in lesion appearances, non-standard protocol in sequence image acquisition, and co-existence of other medical conditions. Accuracy for screening of PCV in FA is approaching 90% in the current development.

Because of Tsai's broad interest in artificial intelligence, she also successfully initiated an NSF-funded interdisciplinary project with experts in Education and Speech Pathology to discover error patterns in assessment outcomes for reading comprehension in English. Such work is also highly valued in Mandarin-speaking countries, such as Taiwan, since these countries also promote English to achieve globalization. Tsai's international connection allows her to collect data from both the US and Taiwan to study the generalization ability of the work in countries of different education environments.

With all the projects collaborated with institutions in Taiwan, Tsai aims to provide a rich platform for graduate students of CCU and Queens College to develop abilities to overcome language and cultural barriers in an international collaboration, which is an essential skill for globalization.



## Yunping Jiang, Mathematics



Yunping Jiang, a distinguished professor of mathematics, teaches mathematics and works on dynamical systems and complex analysis and applications.

He dedicated himself to understanding unsolved problems in mathematics and searching for new issues. Jiang has made fundamental contributions in these areas. He is the author of seven dozen research papers, a research monograph, and has edited three conference proceedings. Jiang is the recipient of numerous grants, including National Science Foundation awards and Simons Foundation collaborative awards. Jiang has served on several editorial boards of mathematics journals, including the Transactions of the American Mathematical Society and the Memoirs of the American Mathematical Society.

From 2013–2019, Jiang taught a course called Introduction to Chaotic Dynamical Systems (Math 6503). The 2017 Mathematics Department Self-Study Report describes this course as follows: “Among our regularly scheduled advanced topics courses is distinguished Professor Jiang’s course. Undergraduate students from mathematics and related majors are introduced to many basic and advanced concepts in dynamical systems. Professor Jiang also taught students how to write computer programs to generate

many beautiful fractal pictures. Many students augmented their learning by use of the Internet and the library to search relating materials suggested by Jiang. By the end of the semester, students’ work had built up from basic concepts of modern dynamical systems theory and had led to the point of current research in several areas in dynamical systems. At the end of class, a number of students handed in beautiful research notes and conveyed that this was the first time they had done research in mathematics and several went on to PhD study after taking this course.”

After he graduated from Peking University, Jiang came to the CUNY Graduate Center for his PhD study in mathematics. After finishing his degree, Jiang received a post-doctoral position at the Institute for Mathematical Sciences at Stony Brook University and subsequently joined the Department of Mathematics faculty at Queens College in 1992. In 1998, he was jointly appointed to the doctoral faculty at the Graduate Center and in 2013 was named distinguished professor of mathematics. At the CUNY Graduate Center, Jiang supervised ten PhD students, including one from the Academy of Mathematics and Systems Science at the Chinese Academy of Sciences. He has supported many postdoctoral scholars and visiting scholars from many countries at Queens College and the Graduate Center. In keeping with the internationalization goal of Queens College, Jiang has traveled to many countries, including China, France, Germany, India, Portugal, Japan, Switzerland,

England, and New Zealand and wrote many articles with his collaborators in these countries. He also wrote a paper with his co-author in Malaysia from a remote collaboration. Jiang recently got interested in ergodic theory and number theory and wrote several articles in this area. Two of them are with his collaborators in Japan, China, and France. This year, Jiang helped the CUNY Graduate Center and Nanjing University of Science and Technology, signing a joint memorandum of understanding for collaborative research projects, academic personnel exchanges, joint academic activities, and student exchanges.

## Azriel Genack, Physics



Azriel Genack and Andrea Alù of the CUNY Advanced Science Research Center (ASRC) chaired the US/Middle East Conference on Photonics, which

took place between November 4–6, 2019 at the ASRC. The organizing committee included Nader Engheta (Penn), Vinod Menon (CUNY), Ekmel Özbay (Bilkent University, Turkey), Mordechai Segev (Technion, Israel) and Matthew Sfeir (CUNY).



The aim of the conference was to strengthen the foundational principle of scientific inquiry of unfettered discourse across borders without regard to nationality, religion, or

politics. The focus was on interactions with countries in the Middle East and on highlighting the important contributions made to photonics by scientists from the Middle East. This was accomplished by providing a forum to U.S., European, and Middle Eastern scientists for the discussion of cutting-edge photonics research. Because the principle of open engagement is so precious to the photonics community, the conference was attended by international leaders in photonics. Many speakers opened their remarks



Jiang giving a talk



with an appreciation for the chance to be counted for free scientific expression. Hatice Altug, École Polytechnique Fédérale de Lausanne, noted that “It is indeed inspiring to use the power of science and scientific curiosity to bring people together irrespective of their background, gender, or race.”

The excitement of interactions across borders with Middle Eastern scientists thus strengthened the resolve of scientists to stand up for free expression which is being tested on university campuses in the U.S. and around the world.

The conference featured a panel discussion: Photonics 3.0: A Worldwide Quest for the Next Technology Revolution held at The Graduate Center of CUNY. The panel took a hard look at the challenge of open engagement in the Middle East and proposed ways to move forward. The panel was moderated by Andrea Alù. The panelists were Esen Ercan Alp, Argon National Laboratory, Chair, Synchrotron-light for Experimental Science and Applications in the Middle East (SESAME) Scientific Advisory Committee; Federico Capasso, Harvard University; Nader Engheta, University of Pennsylvania; and Mordechai Segev, Technion – Israel Institute of Technology.

The program featured 40 invited talks and poster sessions with approximately 10 groups participating at the ASRC. On the first evening of the conference, there was an early career symposium on photonics with 20 talks organized by graduate students and postdocs following the panel discussion held at The Graduate Center.

The conference was the first large conference at the Photonics Initiative at the Advance Science Research Center and was an opportunity for people in photonics to become acquainted with the ASRC.

In opening the conference, Azriel Genack noted that the importance of sharing ideas with colleagues was expressed by Galileo in a letter to Kepler:

*"Oh, my dear Kepler,... Why are you not here? What shouts of laughter we should have at this glorious folly! and to hear the professor of philosophy at Pisa laboring before the grand duke with logical arguments, as if with magical incantations, to charm the new planets out of the sky."*

This conference shows that the open spirit of science is still strong.



Conference session

