## News: Strings 2016 at Beijing

## by Sarah LaBauve\* and Wei Song

On August 1–5, 2016, faculty, postdocs, and students from across the globe attended the Strings 2016 Conference hosted at Tsinghua University in Beijing. The annual Strings Conference has been running since 1989 and has grown into the most important and widely attended conference on this exciting topic. Every year, senior and junior researchers gather to share their findings on this dynamic topic, learning from each other and working together as a group to chart new avenues of intellectual exploration.

The scientific program of the conference included multiple review talks summarizing the rapid develop-

ments of string theory over the past few years, such as Juan Maldacena's talk on "Entanglement, gravity and tensor networks" and Cumrun Vafa's talk on "6d Superconformal Field Theories." Many other topics were also touched in the plenary session, such as "Soft Hair on Black Holes" (Malcolm Perry and Andrew Strominger), integrable spin systems (Kevin Costello and Edward Witten), and particle physics (Yifang Wang and Hong-Jian He). Nobel Laureate David Gross gave the concluding talk, treating the audience to his observations on the future of String Theory.



Audience for Strings 2016 at the New Xuetang at Tsinghua University.

ÉE-mail: slabauve@math.harvard.edu



Fields Medalist Edward Witten.

Many junior faculty members and postdocs not only attended Strings 2016 but also gave several talks during the five parallel sessions. Junior faculty members and postdocs spoke in five parallel sessions, focusing on topics such as string-mathematics, scattering amplitude and integrability, and holography and

entanglement. These parallel sessions gave younger researchers a chance to share their work and collaborate with each other, and many questions brought up during the Q&A portion of the plenary talks were addressed during these parallel sessions. Students also had a chance to present their research at the conference poster session and gong show.

Besides the main scientific program, there were several related events running concurrently in which conference attendees were allowed to participate. This included the "The School on String Theory, Quantum Field Theory and Geometry of Spacetime" at the Yau Mathematical Sciences Center, "An Entangled Trio: Gravity, Information and Condensed Matter" at the Institute for Advanced Study at Tsinghua Univesity, and the International Conference on frontiers of science on "Quantum Cosmophysics" by Kavli Institute for Theoretical Physics China. Strings 2016 also hosted its own public talks on the evening of August 2, with Robbert Dijkgraaf speaking on "The Frontier of Fundamental Physics" and Nima Arkani-Hamed speaking on "The Future of Fundamental Physics."

In addition to the academic schedule, participants and speakers regularly gathered together during group lunches, excursions to local points of interest, banquets, and other organized social events. Faculty and postdoc explored Beijing through planned excursions to historic locations such as the Sum-



Nobel Laureate David Gross chats with other Strings speakers on the Tsinghua campus.

mer Palace and the Imperial Gardens, and all Strings participants were encouraged to attend the opening ICCM ceremonies hosted at the Great Hall of the People. These many events fostered academic collaboration and overall collegiality, giving the conference participants the opportunity to continue academic discussions in friendly, casual atmospheres.

Throughout their talks, the speakers showed incredible enthusiasm for the current state of string theory and theoretical physics as well as a great eagerness to see what lies ahead. During the conference, Prof. Lizhen Ji of the University of Michigan

also conducted one-on-one interviews with the plenary speakers to discuss how their interest in string theory began and developed throughout their careers. These talks gave many insights into both the history of string theory as well as the many paths individual scholars can follow in order to produce world-renowned research. As a whole, the exceptional lineup of plenary speakers at Strings 2016 were incredibly generous with their knowledge and wisdom, and the work from Strings 2016 will undoubtedly contribute to the forward movement of this exciting field of study.