

From the Editors-in-Chief

Every time we see the tall tower of Fine Hall, we think of the countless distinguished mathematicians who have called this place home. Every time we bite the cookies at the Math Department's afternoon tea, we get a taste of Princeton University's fine aura of mathematical scholarship.

At Princeton, just as much emphasis is placed on undergraduate education as on research. Every math major conducts independent work in their junior and senior years. And it is in the same spirit of combining research and education that we have founded Principia: The Princeton Undergraduate Mathematics Journal.

With this student-run publication, we hope to provide a platform for undergraduates, high school students and any math enthusiasts to research, share and learn mathematics at an undergraduate level. It is our earnest wish that Principia will fuel a mathematical passion in more people as well as play a role in connecting friends of mathematics across the country and around the world.

As we celebrate our inaugural issue, we would like to express our deepest gratitude to the Principia staff for their dedicated efforts to make this journal possible. It was our greatest privilege to be able to work with such talented and committed members. We would like to especially thank the Academic Directors Dan Dore '16 and Alexander Payne '16 for streamlining the review process, Webmaster Angelica Chen '17 for the design of our logo, journal, and website, Production Director Elizabeth Yang '16 for directing the copy editing process, and Business Director David Zhao '15 and Treasurer Roy Zhao '17 for excellently managing all the business required to run and maintain a journal and an organization. Our gratitude extends to all staff members for meticulously reviewing the articles and editing them to fit our format. We would also like to thank Angela Zhou '16 for volunteering her time to design the cover for us.

We would like to thank our advisers, Professor Manjul Bhargava and Professor Emeritus John Horton Conway, for their invaluable advice and guidance ever since the staff conceived of the initiative to start an undergraduate mathematics journal at Princeton. We also sincerely thank Alan Chang '14 for guiding us through the initial conception of the journal, and Shrenik Shah '14 for sharing his experience in founding the Harvard College Mathematics Review. We also owe debt to the Department of Mathematics at Princeton University, the Math Club, and our sponsors for their continued generous support.

Principia is still at its infancy and would appreciate any feedback from our readers. Please direct all your questions to princetonmathjournal@gmail.com.

To this day I still vividly remember the excitement of publishing my first academic paper in the International Journal of Contemporary Mathematical Sciences in high school. I gave an elementary proof of a generalization of Bertrand's postulate on prime numbers. And now, it is a profoundly rewarding effort to help more math lovers share the excitement of discovery and publication.

Andy Loo '16

My favorite hobby was to spend nights cruising through random math articles on websites such as Wikipedia, PlanetMath, AoPS, ProofWiki. A concept I did not understand in one entry led to another article, and the detour sometimes continued onto journal articles. The joy and passion I found from such journeys fueled my motivations to study mathematics as a major at Princeton: if Principia could spark such a detour for even one reader, it would make all of our efforts worthy.

Bumsoo Kim '16