

November 15, 2022

## 2022 Alice T. Schafer Mathematics Prize Winners Announced

The Association for Women in Mathematics (AWM) will award the 32nd Annual Alice T. Schafer Prize for excellence in Mathematics by an Undergraduate Woman to **(Carina) Letong Hong**, a junior mathematics and physics major at the Massachusetts Institute of Technology. **Faye Jackson**, mathematics major at the University of Michigan has been named Runner-up. **Alexandra Hoey** (Massachusetts Institute of Technology), **Simran Khunger** (Carnegie Mellon University), and **Lily (Qiao) Li** (University of California at Berkeley), will each receive an honorable mention. The 2022 AWM Alice T. Schafer Prize will be presented during the Joint Prize Session at the 2022 Joint Mathematics Meetings in Seattle, Washington.



**(Carina) Letong Hong** has participated in REUs at the University of Minnesota-Duluth and the University of Virginia and conducted research at MIT and the Budapest Semesters in Mathematics. Hong has

an impressive track record of completed research in many areas, including stack-sorting algorithms, pattern avoidance in inversion sequences, the Monstrous Moonshine Conjecture, L-functions of modular elliptic curves and K3 surfaces, and Markov chains on edge colorings of bipartite graphs; Hong recently received the Emerging Leader Award and Community Building Award at MIT, where she is the President of the Undergraduate Mathematics Association and the Advocacy and

Outreach Chair of the First Generation and Low Income Students Coalition.



**Faye Jackson** excels in course work, in research, and in community engagement both within her department and in the broader Ann Arbor and surrounding areas. In addition to research at the Lab of Geometry at

Michigan, she participated in the SMALL REU where she conducted research on Zeckendorf decompositions, Discrete Erdos Distance Problems, Random Matrix Theory, and More Sums Than Differences sets. Jackson is now a co-author on six papers. She has also been an essential and incredibly reliable presence in the outreach programs of the University of Michigan Mathematics Department. She has participated in Math Mondays in Ypsi, Super Saturdays, the Michigan Math Circle, and the new Math Corps in Ann Arbor.



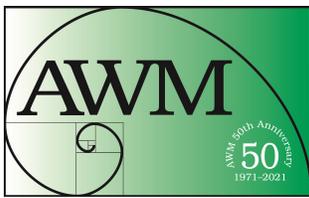
**Alexandra Hoey** participated in the MIT Summer Program in Undergraduate Research as well as two REUs at the University of Virginia. Her research focuses on arithmetic statistics - an

active area of research that is closely related to many famous conjectures in number theory. Her research includes work on class numbers of imaginary quadratic fields. With her collaborators, Hoey proved a strong theorem

Association for Women in Mathematics

P.O. Box 40876 • Providence, Rhode Island 02904

401.455.4042 • awm@awm-math.org • www.awm-math.org



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about the Sato-Tate conjecture. This work has led to two papers, one of which will appear in Transactions of the American Mathematical Society.



**Simran Khunger** has participated in REUs at Williams College and Oregon State University and held a research apprenticeship studying Algebraic Topology. She has one published article, one submitted

article, and another in preparation, as well as an impressive number of presentations and posters. With her ability to quickly dive into technical material, to convert ideas into usable results, and her infectious enthusiasm, Khunger is expected to excel in all areas of the mathematics profession (photo credit: Cara Yi).

student on a completely different topic in complex dynamics; their work was described by one of her mentors as “good enough to earn a Ph.D. thesis” at a research university. In addition, Lily was part of the knot theory research group at the SMALL REU at Williams College. There, her research led to three papers on hyperbolic knot complements, two of which have been submitted for publication. Lily’s research work has thus touched on a great breadth of advanced mathematical topics (photo credit: Chloe Chu).

Full citations and response from the winners are available here:

<https://awm-math.org/awards/schafer-prize-for-undergraduates/schafer-prize-2022/>



**Lily (Qiao) Li** has participated in two summer REUs at Georgia Tech. Her research work from the first summer was on totally symmetric sets in groups and led to two papers, already accepted at Geometriae Dedicata

and Involve. Based on the second summer REU, she is currently working with one other

*In 1990, the Executive Committee of the AWM established the annual Alice T. Schafer Prize for Excellence in Mathematics by an Undergraduate Woman. The prize is named for Alice T. Schafer (1915–2009), one of the founders of AWM and its second president, who contributed greatly to women in mathematics throughout her career.*

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P.O. Box 40876 • Providence, Rhode Island 02904  
401.455.4042 • [awm@awm-math.org](mailto:awm@awm-math.org) • [www.awm-math.org](http://www.awm-math.org)