Every summer, the Stanford Math department runs a program (SURIM) aimed at introducing promising Stanford math majors with PhD program-style research. This summer, seven undergraduate research projects were carried out under the supervision of both faculty and graduate students from the department. Our student researchers will be presenting their final reports today and tomorrow; the schedule of talks is below.

All talks will be in 384-H

Thursday, August 31st

10:00am
“Zeros of modular forms and theta series from Brandt matrices”
Patrick Revilla, Katy Woo, Sungyeon Yang
Graduate mentor: Jesse Silliman

11:30am
“Schubert calculus on the Grassmannian”
Leslie Tu
Faculty mentor: Ravi Vakil

2:00pm
“Persistent homology of molecular rotation projections”
Patrick O’Neil
Faculty mentor: Gunnar Carlsson

3:30pm
“Modular symbols”
Nikolas Castro
Faculty mentor: Dan Bump

Friday, September 1st

1:00pm
“New values and bounds for the Erdős–Ginzburg–Ziv constant for finite abelian groups”
Jared Bitz, Cory Griffith
Graduate mentor: Xiaoyu He

2:30pm
“Problems in analytic number theory”
Chen Lu
Faculty mentor: Kannan Soundararajan

4:00pm
“Bernoulli convolutions”
Mason Rogers, Arianna Serafini, Anav Sood
Graduate Mentor: Erik Bates