Jas Singh

jas@math.ucla.edu   https://www.math.ucla.edu/~jas/

EDUCATION

University of California Los Angeles   **September 2016 - March 2020**
Bachelor of Science, Mathematics

University of California Los Angeles   **September 2021 -**
Ph.D, Mathematics

ACADEMICS

As an undergraduate at UCLA I took rigorous and challenging courses in mathematics, including many honors upper division and graduate courses. I also took and passed the spring 2019 Ph.D qualifying exam in Algebra as an undergraduate.

197 Courses
In spring 2018, I worked with Professor Moschovakis and a small group of interested students in a Math 197 course, wherein we studied topics in set theory such as ordinals and descriptive set theory. We met twice weekly to present solutions to problems we had solved.

In fall 2019, I read algebraic number theory with Professor Totaro at UCLA as a Math 197 course. This was a continuation of readings I did with Professor Totaro the summer before. I read parts of Janusz's *Algebraic Number Fields* and completed exercises in the book. Professor Totaro and I met weekly to discuss these readings and problems.

EXTRA-CURRICULARS

Directed Reading Program
Throughout the academic year of 2018-2019 I was involved in the UCLA mathematics department's directed reading program (DRP). In this, I was paired with a graduate student in math as a mentor who would help me engage in an independent reading project. I read through sections of *Algebraic Theories: A Categorical Introduction to General Algebra* by Adámek, Rosický, and Vitale as well as *Higher Categories and Homotopical Algebra* by Cisinski. I gave a ten minute presentation to fellow undergraduate students in the DRP about my reading in algebraic theories at the end of the fall quarter of that year.

Reading Courses
Over summer 2018 I engaged in a guided reading with Professor Elman at UCLA. I read the sections and did exercises on real closed fields and multilinear algebra in his book *Lectures on Algebra*, which can be found on his website. I met Professor Elman weekly to discuss these readings.

I did a guided reading with Professor Totaro over the summer of 2019. I read parts of Professor Sharifi's algebraic number theory notes, which can be found on his website. Professor Sharifi provided me with relevant exercises which I worked through. I met Professor Totaro weekly to discuss these readings and problems.

In winter 2020 I read parts of Huybrechts' *Complex Geometry* with Professor Totaro. We met roughly every week to discuss these readings. I got through the first four chapters, doing various exercises along the way.

TECHNICAL SKILLS

I have basic proficiency in LaTeX and have typeset numerous lecture notes and homework sets.

FELLOWSHIPS AND AWARDS

I received the 2020 Sherwood Prize from UCLA's mathematics department for exceptional performance as an undergraduate.