

Student Algebraic Geometry Seminar

Organizer(s): Andrew Critch and Andrew Dudzik

Fridays, 4:00–5:00pm, 740 Evans

Fri, Feb 10 **Will Johnson**, UC Berkeley

Introduction to Toric Varieties

Toric varieties provide a wealth of examples in algebraic geometry. Toric geometry associates a variety to a collection of convex cones called a fan. Algebraic properties of the variety correspond to combinatorial properties of the fan. In this talk, I'll give the basic definitions, discuss a number of low-dimensional examples of toric varieties, and state some of the algebraic-geometric properties of toric varieties. Time permitting, I'll also briefly sketch how toric varieties can be used to translate facts from algebraic geometry into combinatorial statements about convex bodies.

After the seminar, everyone is invited out for drinks and dinner with the speaker.