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.*