

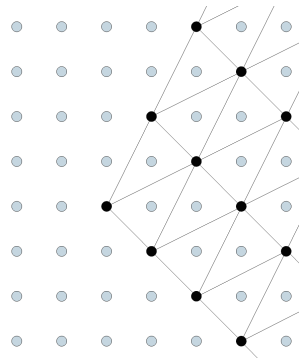
STudent ResEARch TalkS (StReaTs)

Mason Experimental Geometry Lab (MEGL)

Gröbner Bases of Toric Ideals

Jack Love

Department of Mathematics Sciences
George Mason University



Abstract

This talk is essentially an introduction to the words in its title. The context is algebraic geometry, where algebraic objects called ideals correspond to geometric objects called varieties.

We will see how semigroups of \mathbb{Z}^d give rise to a special class of ideals in $k[\mathbf{x}]$, and the how the corresponding varieties relate to algebraic tori.

We will also talk about the computational utility of Gröbner bases of ideals in general and of toric ideals in particular.

Date: Friday, October 23, 2015

Time: 2:30pm–3:30pm

Place: Exploratory Hall 4106

Pizza and soda will be served at the presentation.

For further information or for special accommodations, please contact Sean Lawton via email at seanlawton@gmail.com or drop by the MEGL.