



Institute for Mathematics and Its Applications  
2014 PI Summer Graduate Program  
Modern Applications of Representation Theory  
Special Seminar

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**Geometric Complexity Theory and Minimal Free Resolutions**

**FRIDAY, August 1, 2014, at 1:30–2:30 PM**

Room 112, 5727 S. University Avenue

**ABSTRACT**

After giving an introduction to geometric complexity theory, I will describe recent work in progress with Klim Efremenko and Hal Schenck on the potential use of Hilbert functions and minimal free resolutions in the separation of complexity classes. This project was inspired by recent work of Gupta et. al. on depth three circuits.