



The rising STAR of Texas

Discrete Mathematics Seminar

*** Please note this talk has been changed to 1:00-1:50 PM. ***

Time: Friday, May 3, 2019, 1:00-1:50 PM
Room: 330 Derrick Hall
Title: A graph theoretic characterization of algebraic independence in the Grassmannian of planes
Speaker: Dr. Daniel Berstein, Department of Mathematics, North Carolina State University

Abstract:

In this talk, I will introduce a family of graphs that I would like help understanding better. I will define this family (graphs having an acyclic orientation lacking closed walks whose edge directions alternate), I will tell you what they correspond to (independent sets in the algebraic matroid underlying the Grassmannian of planes), and why one might care (low-rank matrix completion, e.g. the Netflix problem). I will list several open problems that I hope will be accessible and appealing to a broad combinatorial audience. Results to be presented in this talk come from the following paper: <https://arxiv.org/abs/1612.06797>