

Northeastern University



Mathematics Department

Geometry, Physics, and Representation Theory Seminar

Noah Giansiracusa

Bentley University

Thursday, October 3, 2:50-3:50 pm, Lake Hall 509

A matroidal view of group representations

Abstract

Tropical geometry provides a convenient algebraic framework for matroids, and in this talk I'll present recent work with a student, Jacob Manaker, where we use this language to explore representations of groups on tropical linear spaces, rather than on vector spaces over a field. This brings up some intriguing combinatorial aspects of classical representation theory, though we are only at the first steps of this story and hope to interest others in joining this project.