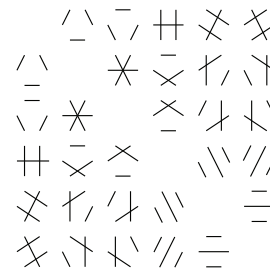# Mathematics Seminar

## Rocky Mountain Algebraic Combinatorics Seminar

### When are multidegrees positive?

Federico Castillo

U. Kansas

The multidegree of a multiprojective variety encodes intersection number of the variety with different products of linear spaces. Characterizing all possible multidegrees of irreducible varieties is a hard problem (with an almost full classification only in the single and bi-graded case). Here we focus only on the support of the multidegrees which turns out to be a special type of polytope. We'll see some applications to Schubert polynomials and mixed volumes of polytopes. This is joint work with Yairon Cid-Ruiz, Bingling Li, Jonathan MontaÃśo, and Naizhen Zhang.

Online via Zoom
`https://zoom.us/j/99764124299?pwd=YXZXdkcvQjB2RnFHeWtjUXRyUTF0UT09`
4 pm, Friday, August 14 2020
Get together online starting at 3:30 pm

This is a joint Denver U / UC Boulder / UC Denver / U of Wyoming / CSU seminar that meets biweekly.
Anyone interested is welcome to join us at a local restaurant for dinner after the talks.