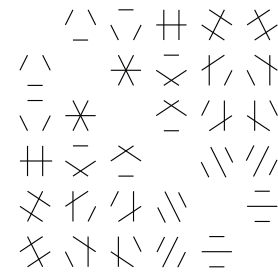# Mathematics Seminar

Rocky Mountain Algebraic Combinatorics Seminar

The singular locus of regular Hessenberg varieties

Martha Precup
Washington University in St. Louis

Hessenberg varieties are subvarieties of the flag variety with important connections to representation theory, algebraic geometry, and combinatorics. Like Schubert varieties, the structure of Hessenberg varieties can be studied using the combinatorics of the symmetric group. In this talk, we will define these varieties and compute their Betti numbers. Then we'll give a combinatorial criterion for identifying singular points in certain regular Hessenberg varieties. These results are joint work with Erik Insko and Alex Woo.

Weber 223
4–6 pm, Friday, Nov 18, 2022
(Refreshments 3:30–4 pm)
Colorado State University
4 pm, Friday, Nov 18, 2022

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