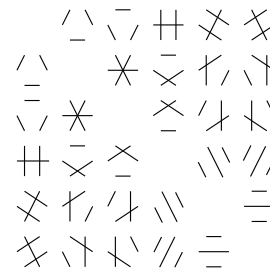# Mathematics Seminar

Rocky Mountain Algebraic Combinatorics Seminar

The Buzz about BHZ: The Life and Times of Brauer's Height Zero Conjecture

Mandi Schaeffer Fry

Metropolitan State University of Denver

In 1955, Richard Brauer, often regarded as the founder of modular representation theory, made one of the first of the so-called "local-global" conjectures in character theory and opened the door to an entire area of research. I'll discuss the background of this conjecture and its recent proof, which is joint work with G. Malle, G. Navarro, and P.H. Tiep.

Bounding Character Values at Regular Semisimple Elements

Jay Taylor

University of Manchester

If $\chi : G \to \mathbb{C}$ is an irreducible character of a finite group G then one can ask how large the absolute value $|\chi(g)| \in \mathbb{R}$ at a given element $g \in G$ is. Typically one wants to obtain some $C \in \mathbb{R}$ such that the bound $\chi(g) \leq C$ holds as g varies over a suitable subset of elements. In this talk we'll try to explain why this question is important and discuss recent joint with P. H. Tiep and M. Larsen obtaining new bounds in the case where G is a finite reductive group and the element g is regular semisimple.

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