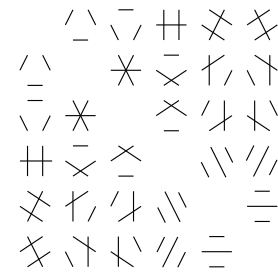


# Mathematics Seminar



## Rocky Mountain Algebraic Combinatorics Seminar

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### Graph homomorphisms, partition functions, and extremal problems, Part 1

Ewan Davies  
Colorado State University

We survey an area of graph theory motivated by applications to number theory, physics, geometry, and algorithms. The study of graph homomorphisms, independent sets, and colorings has resulted in the development of some of the most influential techniques in probabilistic combinatorics. We focus on one example known as “local occupancy” that has yielded breakthroughs in several areas.

### Part deux

Ewan Davies  
Colorado State University

Weber 223  
4–6 pm, Friday, February 23, 2024  
(Refreshments 3:30–4 pm)  
Colorado State University  
4 pm, Friday, February 23, 2024

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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.



Department of Mathematics  
Fort Collins, Colorado 80523