

The George Washington University Combinatorics Seminar

Friday, February 15, 4:00 - 5:00 p.m.

Monroe Hall, Room 353
2115 G Street, N.W., Washington, D.C.

Matroids and decomposable tensors

Vic Reiner (University of Minnesota)

I'll discuss recent work of my student Andy Berget, about the relation between certain invariants of matroids and vectors:

- the “rank partition” of a matroid
- Crapo and Schmitt’s “Whitney algebra” of a matroid
- the general linear group representation generated by a decomposable tensor in tensor space

The motivating question is to figure out how much of the latter representation is determined by the matroid (combinatorial) data of the vectors making up the decomposable tensor. Several nagging open questions will be discussed.