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Toric Arrangements Associated to Graphs

Abstract for the Combinatorics Seminar 2017 November 21

Graphs have always played a central role in the study of hyperplane arrangements. Continuing this tradition to the study of hypertoric arrangements on a torus, we study certain toric arrangements that come from graphs. Several classical results that we have extended to toric graphic arrangements include a counting of proper (divisible) colorings, formulas for (arithmetic) Tutte polynomials, and connections to acyclic orientations.

I will consider two types of toric graphic arrangements; one that lives inside the torus that arises from the root lattice of type A, and one from the weight lattice of type A.

This is joint work with Marcelo Aguiar.
