

Combinatorics and Geometry — Seminar —

TROPICAL HYPERPLANE ARRANGEMENTS AND ORIENTED MATROIDS

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Abstract

I will define the notion of a tropical oriented matroid (TOM), an object which captures the combinatorial structure of a tropical hyperplane arrangement, and shares several of the properties of ordinary oriented matroids. I will show how a TOM determines a subdivision of a product of two simplices, and provide strong evidence that this correspondence is a bijection. I will conclude with several open problems.

The talk will assume no previous knowledge of tropical geometry or matroid theory. This is joint work with Anna Brown and Mike Develin.

Wednesday, January 9
5:15 p.m.
Room 381-U

<http://math.stanford.edu/~sampayne/seminar/>