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Computing Tropical Linear Spaces and A-Discriminants

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Tropical geometry studies an algebraic variety X by 'tropicalizing' it into a polyhedral complex that retains much of the information about X. In the case where X is a linear space the resulting polyhedral complex has a beautiful combinatorial structure related to the matroid of X, and for many applications it is desirable to have an explicit description of what this complex is.

In this talk I will give a quick introduction to tropical geometry and tropical linear spaces, and I will explain how they can be used to get a handle on classical A-discriminants. Also, I will describe an effective algorithm for computing the tropicalization of a linear space. There will be several examples, pictures, and software demonstrations.

No previous knowledge of tropical geometry (or discriminants) will be assumed.
