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**Raman Sanyal** and **Bernd Sturmfels\*** (bernd@math.berkeley.edu), Department of Mathematics, University of California, Berkeley, CA 94720, and **Cynthia Vinzant**. *The Entropic Discriminant*.

The entropic discriminant describes the complex branch locus of the polar map of an arrangement of real hyperplanes. It is the non-negative polynomial which vanishes when the equations defining the analytic center of a linear program have a complex double root. We study the geometry of the entropic discriminant, and we determine its degree in terms of matroid invariants. (Received June 21, 2011)