1014-13-444 **Florian Block** and **Josephine Yu*** (jyu@math.berkeley.edu), Department of Mathematics, University of California, Berkeley, CA 94709. *Tropical Convexity via Cellular Resolutions.*

Tropical convex hulls of finite sets of points are analogues of usual convex hulls, in the geometry over the tropical semiring $(\mathbb{R}, min, +)$. They have natural structures of cellular free resolutions, i.e., their combinatorial data give rise to minimal free resolutions of some monomial ideals. Therefore, we can compute tropical convex hulls using methods from computational commutative algebra. (Received September 16, 2005)