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**Mike Develin\***, Department of Mathematics, University of California, Berkeley, 970 Evans Hall #3840, Berkeley, CA 94720-3840, and **Josephine Yu**. *Tropical polytopes*.

Tropical polytopes are polytopes over the max-plus semiring. These turn out to be geometric objects which are even more purely combinatorial than our combinatorial friends, ordinary polytopes; we will present the current state of the theory, defining their faces and using them to construct cellular resolutions of monomial ideals. We will also be presenting a large number of either conjectures or theorems, depending on what happens between this abstract submission deadline and the conference itself. (Received March 01, 2006)