1118-05-189   **Eva-Maria Feichtner*** (`emf@math.uni-bremen.de`), Department of Mathematics & Computer Science, University of Bremen, 28359 Bremen, Germany. *Bergman fans - a link between arrangement theory and tropical geometry.* Preliminary report.

Tropicalizations of arrangement complements turn out to be rational polyhedral fans whose link at the origin is homeomorphic to the order complex of the respective intersection lattice. On the level of matroids, the so-called Bergman fans are discrete-geometric constructions that allow to recover the matroid. Proving the latter requires an intriguing mix of discrete-geometric and tropical techniques.

Part of this material is joint work with Michael Falk. (Received January 31, 2016)