1117-13-264   **Dustin Cartwright***, Department of Mathematics, 227 Ayres Hall, Knoxville, TN 37996-1320.
The Gröbner stratification of a tropical variety.

The Gröbner fan of a homogeneous ideal records the possible Gröbner bases as the weight vector is allowed to vary. The tropicalization of the ideal is the support of a distinguished subfan of the Gröbner fan. However, the tropicalization only depends on the image of the ideal in the Laurent polynomial ring formed by inverting all of the coordinate variables. Working directly in the Laurent polynomial ring, one can form a coarsening, called the Gröbner stratification. The Göbner stratification is closely related to the tropical variety, but in some cases, can contain more information. (Received January 15, 2016)