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**Jason A Miller\*** ([millerj@math.osu.edu](mailto:millerj@math.osu.edu)). *A degree formula for Borel orbit closures in the variety of complete conics.* Preliminary report.

This talk looks at a degree formula for certain subvarieties of the space  $X$  of complete conics. The space of complete conics can be made into a spherical variety for a natural reductive group action. Given a very ample  $G$ -line bundle  $L$  on this space, one can construct an associated Newton polytope  $\mathbf{P}(L)$  which encodes a great deal of geometric information about  $X$ . I will show that there is an explicit correspondence between the Borel orbit closures and certain linear combinations of faces of  $\mathbf{P}(L)$ . For this correspondence, one can determine the degree of a  $B$ -orbit closure, with respect to the embedding given by  $L$ , by calculating the (suitably normalized) volume of the associated faces. This correspondence and degree formula are similar to correspondences and degree formulas that have already been shown to exist for smooth projective toric varieties and complete flag varieties. (Received September 04, 2012)