1171-05-161 Gaku Liu* (gakuliu@uw.edu). Unimodular triangulations of sufficiently large dilations.

An integral polytope is a polytope whose vertices have integer coordinates. A unimodular triangulation of an integral polytope in \mathbb{R}^d is a triangulation in which all simplices are integral with volume 1/d!. A classic result of Kempf, Mumford, and Waterman states that for every integral polytope P, there exists a positive integer c such that cP has a unimodular triangulation. We strengthen this result by showing that for every integral polytope P, there exists c such that for every positive integer c' > c, c'P admits a unimodular triangulation. This answers a longstanding question in the area. (Received August 10, 2021)