

1073-05-107

June Huh* (junehuh@umich.edu). *Characteristic polynomials and the Bergman fan of matroids.*

Let V be a subvariety of the torus. The asymptotic behavior of the amoeba of V is given by a polyhedral fan called the Bergman fan of V . We use the tropical geometry of the Bergman fan to prove the log-concavity conjecture of Rota and Welsh over any field. This work is joint with Eric Katz and is based on arXiv:1104.2519. (Received July 29, 2011)