Devlin Mallory* (malloryd@umich.edu). *Minimal log discrepancies of determinantal varieties via jet schemes.*

We compute the minimal log discrepancies of determinantal varieties of square matrices, and more generally of pairs $(D^k, \sum \alpha_i D^i)$ consisting of a determinantal variety (of square matrices) and an $\mathbb{R}$-linear sum of determinantal subvarieties. Our result implies the semicontinuity conjecture for minimal log discrepancies of such pairs. For these computations, we use the description of minimal log discrepancies via codimensions of cylinders in the space of jets; this necessitates the computations of an explicit generator for the canonical differential forms and the Nash ideal of determinantal varieties, which may be of independent interest. (Received July 13, 2019)