

1116-14-2328

Serkan Hosten*, San Francisco State University, Department of Mathematics, 1600 Holloway Avenue, San Francisco, CA 94707. *Maximum Likelihood Degree of Toric Models in Algebraic Statistics*. Preliminary report.

The Maximum likelihood degree of a toric variety is the Euler characteristic of a hypersurface associated to the log likelihood function in that toric variety. Despite this general result, computing the maximum likelihood degree of a specific toric variety is a challenge. We will report on progress for computing the maximum likelihood degree of toric varieties that appear in algebraic statistics, such as hierarchical log-linear models. (Received September 22, 2015)