

1125-62-1739 **Carlos Amendola*** (amendola@math.tu-berlin.de). *Maximum Likelihood Estimate Homotopy Tracking for Twisted Toric Models*. Preliminary report.

The study of maximum likelihood estimates (MLEs) for toric models has been one of the successes of Algebraic Statistics. In the setting of a ‘twisted’ toric model, which corresponds to a scaling of the original parametrization map, we prove that it is possible to track a homotopy path whose endpoints correspond to the different MLEs of two twisted models that may have distinct ML degrees. We illustrate with examples such as the Veronese model, and present how this idea could be applied to help compute MLEs for toric models efficiently.

This talk is based on a Mathematics Research Communities: Algebraic Statistics project, developed by the ‘Likelihood Geometry’ group. (Received September 19, 2016)