

1125-15-1341 **Grigoriy Blekherman*** (greg@math.gatech.edu) and **Rainer Sinn**. *Maximum Likelihood Threshold of Gaussian Graphical Models*. Preliminary report.

Solution to positive definite matrix completion problem determines the existence of maximal likelihood estimate for a Gaussian graphical model. I will discuss two geometric invariants: the maximum likelihood threshold and the Gaussian rank of a graph. We will give several interpretations of these invariants and the first example of a graph where these two invariants are different. (Received September 16, 2016)