

1056-14-1155 **Seth Sullivan*** (smsulli2@ncsu.edu), Department of Mathematics, Raleigh, NC 27695.

Algebraic geometry of Gaussian graphical models.

Gaussian graphical models are parametrically defined semialgebraic subsets of the cone of positive definite matrices. Their Zariski closures generalize familiar varieties in combinatorial algebraic geometry including toric varieties, secant varieties, and matrix Schubert varieties. I will report on some recent results towards understanding the implicit descriptions of these models. (Received September 21, 2009)