962-62-844 **Ian H Dinwoodie***, Dept of Mathematics, Tulane University, New Orleans, LA 70118.

Parameter Estimation in Polynomial Stochastic Models.

For certains families of high dimensional distributions, the problems of parameter identifiability and maximum likelihood estimation can be formulated algebraically and solved or partially solved with a Grobner basis. Examples and theorems will be given. (Received September 27, 2000)