1003-62-19 **Bernd Sturmfels***, Department of Mathematics, University of California, Berkeley, CA 94720-0001. *Algebraic statistics.*

Many widely used statistical models for discrete data are algebraic varieties, that is, solutions sets of polynomial equations. We discuss this algebraic representation and its implications for statistical problems such as maximum likelihood estimation. Special emphasis is placed on models which are used in computational biology. (Received April 19, 2004)