



TUTORIAL ON ALGEBRAIC STATISTICS

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“Algebraic Statistics” is an emerging field that considers and applies tools from computational algebra and algebraic geometry, to statistics. Statisticians are finding useful results in computational commutative algebra because many applications of statistical interest reduce to solving systems of polynomial equations. The primary emphasis is on problems that arise in the study of multidimensional contingency tables, as well as other areas of statistics (e.g. maximum likelihood estimation, experimental design). Meanwhile, algebraists are keenly interested in further developing computational algebraic results stemming from these applications, and the relevance of Gröbner bases to statistics. The series of tutorial sessions will provide background linking computational algebra to statistics, and illustrate its use to address statistical problems.