Mathematics, Statistics, and Computer Science   **@ UIC**

Graduate Computational Algebraic Geometry Seminar

Conditional Probabilistic Knowledge Bases using Gröbner Bases

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Abstract: Under the circumstances where conditional knowledge is associated with rational probabilities, the maximum entropy principle can be used to generate a set of polynomial equations. These polynomial equations can then be used to check consistency and infer probabilities for new information via Gröbner bases computations (Kern-Isberner, Wilhelm, Beierle). I will review these theoretic results and demonstrate an implementation using Sage.

Tuesday, February 9 at 4:00 PM in SEO 1227