

Berkeley Algebraic Statistics Seminar

Organizer(s): and Andrew Critch and Shaowei Lin

Wednesday, 2:00–3:00pm, 939 Evans

Sep 14 **Jose Rodriguez**, UC Berkeley

Markov bases for toric models

In this talk we'll introduce *toric statistical models*, which are equivalent to the discrete exponential family models used in Bayesian statistics. We'll define Markov bases, an algebraic tool for implicitizing these models and generating random walks between observationally equivalent parameters. In particular we state the fundamental theorem of Markov bases, and show how to compute Markov bases using the software package `4ti2`, and possibly `polymake`.