

Berkeley Algebraic Statistics Seminar

Organizer(s): Andrew Critch and Shaowei Lin

Wednesday, 2:00–3:00pm, 939 Evans

Oct 12 **Qingchun Ren**, UC Berkeley

The neighbor-net algorithm and point configurations in \mathbb{P}^1

The neighbor-net algorithm is used in computational biology and linguistics to recover split networks from dissimilarity maps. I will give an introduction to the algorithm and explain the related mathematics (circular decomposable metrics, Kalmanson conditions, etc.). I will explain why the output of the algorithm is statistically consistent, and stable under small perturbations. Also, I will discuss its relation with M_0^n , the moduli space of configurations of n points on the projective line.