Tony Feng, Aaron Landesman* (aaronlandesman@stanford.edu) and Eric Rains. The Geometric Distribution of Selmer Groups over Function Fields.

Bhargava, Kane, Lenstra, Poonen, and Rains proposed heuristics for the distribution of sizes of arithmetic data relating to elliptic curves, such as their ranks and Selmer groups. As a special case of their heuristics, they obtain the minimalist conjecture, which predicts that 50% of elliptic curves have rank 0 and 50% of elliptic curves have rank 1. In joint work with Tony Feng and Eric Rains, we prove many of these heuristics for elliptic curves over function fields of the form $\mathbb{F}_q(t)$, after taking a certain large $q$ limit. (Received July 12, 2019)