Seminar/Talk

The geometric distribution of Selmer groups over function fields

Tony Feng
MIT Mathematics

Host: Tim Browning

Many interesting aspects of the arithmetic of elliptic curves over global fields are governed by Selmer groups, which are cohomological approximations to the group of rational points. The statistical behavior of Selmer groups has been the focus of much recent study, and there is a wide gap between what we can prove and what we believe is true. On the one hand, work of Bhargava and Shankar computes the average size of 2,3,4, and 5-Selmer groups. On the other hand, Bhargava-Kane-Lenstra-Poonen-Rains conjecture a precise distribution for n-Selmer groups, for any n. I will talk about a limiting situation, in the function field context, where the BKLPR distribution can actually be proved to model the distribution of Selmer groups. This is joint work with Aaron Landesman and Eric Rains.

Thursday, December 3, 2020 02:00pm - 03:00pm
https://mathseminars.org/seminar/AGNTISTA

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.