Speaker: Sameera Vemulapalli

Title: Counting low degree number fields with almost prescribed
successive minima

Abstract: The successive minima of an order in a degree n number field
are n real numbers encoding information about the Euclidean structure
of the order. How many orders in degree n number fields are there with
almost prescribed successive minima, fixed Galois group, and bounded
discriminant? In this talk, I will address this question for $n = 3, 4, 5$.
The answers, appropriately interpreted, turn out to be piecewise linear
functions on certain convex bodies. If time permits, I will also discuss a
geometric analogue of this problem: scrollar invariants of covers of $\mathbb{P}^1$.