



DEPARTMENT OF MATHEMATICS AND COMPUTER SCIENCE

## Colloquium

---

INTERSECTION OF HECKE CORRESPONDENCES ON MODULAR  
CURVES

Baiqing Zhu  
Columbia University

**ABSTRACT:**

We formulate and compute the intersection numbers of Hecke correspondences on modular curves of square-free level. We will relate these numbers with purely analytic quantities – derivatives of local densities of quadratic lattices. The results have applications to a conjecture of Rapoport and the triple product formula. This is joint work with Qiao He.

4 – 5pm

Wednesday, September 11, 2024

Room 204, Smith Hall