

## HASSE-WITT MATRICES AND PERIOD INTEGRALS

WEDNESDAY FEBRUARY 21, AT 3 PM, IN CUPPLES I ROOM 199

**Speaker:** An Huang (Brandeis)

**Abstract:** I shall explain a program to relate the arithmetic of Calabi-Yau hypersurfaces in toric varieties or flag varieties, to their period integrals at the large complex structure limit. In particular, we prove a recent conjecture of Vlasenko regarding higher Hasse-Witt matrices. This work follows Katz's description of Frobenius action in terms of local expansions. It is a joint work with Bong Lian, Shing-Tung Yau and Cheng-long Yu.