

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

# Eisenstein Hecke algebras and Iwasawa theory

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Monday, Nov 10 at 4:15 pm  
111 Cummington Street, MCS B21  
Tea and cookies in MCS 144 at 4:00 pm

**Abstract:** There is a close relationship between cyclotomic Iwasawa theory and the theory of congruences between cusp forms and Eisenstein series. This relationship was used by Mazur and Wiles in their original proof on the Iwasawa Main Conjecture, and has been refined in recent conjectures of Sharifi.

In this talk, we'll discuss how, via this relationship, ring-theoretic properties of Hecke algebras are related to module-theoretic properties of class groups.