

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

Some strong twisted base changes for unitary similitude groups

Shrenik Shah
(Columbia University)

Monday, Apr 27 at 4:15 pm
111 Cummington Street, MCS B21
Tea and cookies in MCS 144 at 4:00 pm

Abstract: Labesse, Morel, Skinner, and Shin have attached twisted base changes (on general linear groups) to regular cohomological cuspidal automorphic representations on certain unitary similitude groups. The expected local-global compatibility relations hold at places where the group is split or where the similitude group and representation are unramified. We improve this to include certain limited cases where the group is ramified. This allows us to construct some strong twisted base changes unconditionally for unitary similitude groups, which are needed in recent work of Skinner-Urban on the Bloch-Kato conjecture. We obtain new cases of the generalized Ramanujan conjecture in this setting. Our approach combines automorphic and p -adic methods.