Abstract:
In a series of recent works Blomer, Fouvry, Kowalski, Milicevic, Sawin and myself have been able to solve the vexing problem of evaluating asymptotically the second moment of the central L-values of character twists (of large prime conductor) of a fixed modular form; the solution combines the spectral theory of modular forms, bounds for bilinear sums of Kloosterman sums and advanced methods in l-adic cohomology. We will describe the proof and especially the second and third ingredient which is joint work with E. Kowalski an W. Sawin. References: https://arxiv.org/abs/1411.4467 and https://arxiv.org/abs/1511.01636.

Special Note:
There will be a pre-talk for grad students and postdocs at 1:15.