Djordje Milčević, Bryn Mawr
Counting cusp forms

Central to the modern analytic theory of automorphic forms (such as the classical holomorphic modular forms) is the notion of a family. Several definitions of a family have been proposed, all of which involve a finite set of cusp forms on a reductive linear group (such as $GL(2)$), described by a natural condition and expanding in size. The cardinality of the expanding set acts as an essential characteristic of a family. In this talk, which will emphasize the underlying intuition, I will present new asymptotic results, joint with Farrell Brumley, on counting automorphic forms in the universal family, as well as associated results on explicit uniform Weyl laws and limit multiplicity theorems.