Automorphic forms and Voronoi formulas

Dr. Fan Zhou
University of Maine, Orono, USA

Abstract

Automorphic forms are well-behaved functions on a group (such as $GL(n, R)$) which are invariant under the action of a discrete arithmetic subgroup (such as $SL(n, Z)$). They encode vital arithmetic information. Voronoi formulas are Poisson-style summation formulas for automorphic forms. They have been powerful tools in analytic number theory for a long time (with applications to the divisor problem, the circle problem, subconvexity of $L$-functions, etc). I will talk about Voronoi formulas and their recent development and applications. The talk will start with the Ramanujan tau-function and its related conjectures.

Date: March 6, 2018 (Tuesday)
Time: 4:00 – 5:00pm
Venue: Room 210, Run Run Shaw Bldg., HKU

All are welcome