

Philadelphia Area Number Theory Seminar

Manami Roy
Fordham University

Dimensions of spaces of Siegel cusp forms of degree 2

Abstract: Computing dimension formulas for the spaces of Siegel modular forms of degree 2 is of great interest to many mathematicians. We will start by discussing known results and methods in this context. The dimensions of the spaces of Siegel cusp forms of non-squarefree levels are mostly unavailable in the literature. This talk will present new dimension formulas of Siegel cusp forms of degree 2, weight k , and level 4 for three congruence subgroups. Our method relies on counting a particular set of cuspidal automorphic representations of $\mathrm{GSp}(4)$ and exploring its connection to dimensions of spaces of Siegel cusp forms of degree 2. This work is joint with Ralf Schmidt and Shaoyun Yi.

Tuesday, August 30, 2022
3–5 PM

Temple University
Department of Mathematics
1805 North Broad Street
Wachman Hall, Room **507**

Informal refreshments at 3PM – Talk at 3:30PM