Square roots of symplectic L-functions and Reidemeister torsion

Amina Abdurrahman

IHES

We give a purely topological formula for the square class of the central value of a symplectic representation on a curve. We also formulate a topological analogue of the statement, in which the central value of the L-function is replaced by Reidemeister torsion of 3-manifolds. This is related to the theory of epsilon factors in number theory and Meyer's signature formula in topology among other topics. We will present some of these ideas and sketch aspects of the proof. This is joint work with Akshay Venkatesh.