מכון ויצמן למדע

THE WEIZMANN INSTITUTE OF SCIENCE

FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

on Wednesday, Mar 03, 2021
at 16:30

https://weizmann.zoom.us/j/98304397425

Tian Fangyang
The National University of Singapore

Period Relations of Standard L-Functions of Symplectic Type

Abstract:

A classical result of Euler says that the value of the Riemann-Zeta function at a positive even integer $2k$ is a rational multiple of π^{2k}. In the 1970s, a successive pioneering work of G. Shimura revealed the relation of different critical values of L-function that are attached to modular forms of GL_2. This type of result, conjectured by D. Blasius for general linear groups, is called period relation of a certain automorphic L-function, which is closely related to a celebrated conjecture of P. Deligne. In this talk, I will discuss my work joint with Dihua Jiang and Binyong Sun on the period relation for the twisted standard L-function $L(s, \Pi\otimes\chi)$, where Π is an irreducible cuspidal automorphic representation of $GL_{2n}(\mathbb{A})$ which is regular algebraic and of symplectic type. Along this talk, I will also discuss the key ingredient of this project - the existence of uniform cohomological test vector, which provides the most precise information on the archimedean local integrals.

Email: hanni.naor@weizmann.ac.il * Phone: (08)9343349 * Fax: (08)9344308