



THE WEIZMANN INSTITUTE OF SCIENCE

FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

on Wednesday, Jan 20, 2021
at 16:30

[HTTPS://WEIZMANN.ZOOM.US/J/98304397425](https://weizmann.zoom.us/j/98304397425)

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An infinitesimal variant of Guo-Jacquet trace formulae and its comparison

Abstract:

This talk is based on my thesis supervised by P.-H. Chaudouard. The conjecture of Guo-Jacquet is a promising generalization to higher dimensions of Waldspurger's well-known theorem on the relation between toric periods and central values of automorphic L-functions for $GL(2)$. However, we are faced with divergent integrals when applying the relative trace formula approach. In this talk, we study an infinitesimal variant of this problem. Concretely, we establish global and local trace formulae for infinitesimal symmetric spaces of Guo-Jacquet. To compare regular semi-simple terms, we present the weighted fundamental lemma and certain identities between Fourier transforms of local weighted orbital integrals

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