Workshop on Automorphic Forms and Representations

Department of Mathematics, University of Rijeka, Croatia

Organizer: Neven Grbac

Wednesday, September 23, 2015
Room O–355 (3rd floor of the department building, R. Matejčić 2, Rijeka)

10:00 – 11:00
Atsushi Ichino (Kyoto University)
On the formal degrees of square-integrable representations of odd special orthogonal and metaplectic groups
Abstract: The formal degree conjecture relates the formal degree of an irreducible square-integrable representation of a reductive group over a local field to the special value of the adjoint gamma-factor of its L-parameter. We prove the formal degree conjecture for odd special orthogonal and metaplectic groups in the generic case, which combined with Arthur's work on the local Langlands correspondence implies the conjecture in full generality. This is joint work with Erez Lapid and Zhengyu Mao.

11:30 – 12:30
Shunsuke Yamana (Kyoto University)
A lifting of Hilbert cusp forms to Hilbert Siegel cusp forms
Abstract: Starting from Hilbert cusp forms of weight $2k$, I will construct Hilbert–Siegel cusp forms of weight $k+n$ on the symplectic group of rank $2n$. This is a generalization of the Saito–Kurokawa lifting from degree 2 to higher degrees and of the Ikeda lifting from the rational number field to totally real fields. This is a joint work with Tamotsu Ikeda.

Lunch break

15:00 – 16:00
Marcela Hanzer (University of Zagreb)
Models and theta correspondence
Abstract: The study of various models for representations appearing in local Arthur packets is a very active area of research. We discuss a problem posed by D. Jiang about representations of even orthogonal groups having generalized Shalika model, representations of symplectic groups having symplectic linear model, and their relation through theta correspondence. All groups we discuss are defined over a non-archimedean field of characteristic zero.

16:30 – 17:30
Harald Grobner (University of Vienna)
Rationality for the symmetric and exterior square L-function
Abstract: In this talk we will prove a rationality result for the symmetric and the exterior square L-function for cusp forms of $GL(2n)$, which are in the image of the Langlands transfer from the split orthogonal group $SO(2n+1)$. Our result is compatible with Deligne's conjecture for motivic L-functions.