



# RIMS Workshop

## Automorphic forms, automorphic representations and related topics

Main organizer : Satoshi Wakatsuki (Kanazawa University)

Sub-organizer : Shunsuke Yamana (Kyoto University)

Date : January 21 (Mon.) - 25 (Fri.), 2019.

Venue : Room 420, Research Institute of Mathematical Science, Kyoto University.

Jan. 21 (Mon.)

13:30 – 14:30 **Masao Tsuzuki** (Sophia University)

Explicit trace formula of  $SL_3(\mathbb{Z})$  and its application.

14:45 – 15:45 **Shingo Sugiyama** (Nihon University)

A variant of trace formula related with triple products of modular forms.

16:00 – 17:00 **Hiraku Atobe** (Hokkaido University)

Liftings of vector valued Siegel modular forms (Survey Talk).

Jan. 22 (Tue.)

9:30 – 10:30 **Hiroataka Kodama** (Kogakuin University)

On certain vector valued Siegel modular forms of type  $(k, 2)$  over  $\mathbb{Z}_{(p)}$   
and Sturm bound.

11:45 – 11:45 **Shuji Horinaga** (Kyoto University)

On constructions of nearly holomorphic Siegel modular forms.

13:30 – 14:30 **Niko Laaksonen** (Alfréd Rényi Institute of Mathematics)

Prime Geodesic Theorem in the three-dimensional hyperbolic space.

14:45 – 15:45 **Pablo Ramacher** (Universität Marburg)

The equivariant spectral function and  
non-spherical subconvex bounds for Hecke-Maass forms.

16:00 – 17:00 **Kazuki Kannaka** (University of Tokyo)

On the discrete spectrum of a certain non-sharp locally anti-de Sitter space.

Jan. 23 (Wed.)

9:20 – 9:30 On the RIMS workshop next academic year.

9:30 – 10:30 **Toshiki Matsusaka** (Kyushu University)  
Fourier coefficients of polyharmonic weak Maass forms.

10:45 – 11:45 **Kohta Gejima** (Osaka University),  
**Tomonori Moriyama** (Osaka University)  
On an average of critical values of Rankin–Selberg  $L$ -functions.

13:30 – 14:30 **Werner Hoffmann** (Universität Bielefeld)  
On the Fourier transforms of weighted orbital integrals on the real symplectic group of rank three.

14:45 – 15:45 **Werner Müller** (Universität Bonn)  
Asymptotic distribution of automorphic spectra and the trace formula.

16:00 – 17:00 **Siegfried Böcherer** (Universität Mannheim)  
Nonvanishing properties of Fourier coefficients for Siegel modular forms.

Jan. 24 (Thu.)

9:30 – 10:30 **Tomoaki Nakaya** (Kyushu University)  
The number of linear factors of supersingular polynomials  
and sporadic simple groups.

10:45 – 11:45 **Jiangwei Xue** (Wuhan University)  
On counting certain principally polarized superspecial abelian surfaces  
over  $\mathbb{F}_p$ .

13:30 – 14:30 **Nadir Matringe** (Université de Poitiers)  
Deligne representations of the Weil group modulo  $l$ .

14:45 – 15:45 **Alexei Pantchichkine** (Institut Fourier, University Grenoble-Alpes)  
A motivic approach to Shimura's zeta functions  
and attached  $p$ -adic  $L$ -functions via admissible measures.

16:00 – 17:00 **Jaeho Haan** (KIAS)  
Fourier-Jacobi period and central  $L$ -value.

Jan. 25 (Fri.)

9:10 – 10:10 **Yuya Murakami** (Tohoku University)  
Intersection numbers of modular correspondences.

10:20 – 11:20 **Henry Kim** (University of Toronto)  
Equidistribution theorems for holomorphic Siegel cusp forms.

11:30 – 12:30 **Shunsuke Yamana** (Kyoto University)  
Towards the  $p$ -adic Gross-Zagier formula for triple product  $L$ -series.