



25th Seminar Aachen-Köln-Lille-Siegen on Automorphic Forms

Universität Siegen, September 30, 2009

Organizers: K. Bringmann, J. Bruinier, V. Gritsenko, A. Krieg, G. Nebe, N-P. Skoruppa

This is the 25st meeting of the joint French-German intercity seminar on automorphic forms. Everybody who is interested in automorphic forms is welcome. We encourage in particular young researchers to participate and to report on their work in one of our meetings.

When: Wednesday, September 30, 2009

Where: Universität Siegen - Walter-Flex-Strasse 3 - 57068 Siegen
Emmy-Noether-Campus — Raum D-114

Schedule

14.00 – 15.00 Fredrik Strömberg (Universität Darmstadt):
On computational aspects of vector-valued modular forms
for the Weil representation.

15.15 – 16.15 Ben Kane (Universität Köln):
Equidistribution of Heegner Points and Quadratic Forms.

Coffee Break

17.00 – 18.00 Ulf Kühn (Universität Hamburg):
Scattering constants and Neron-Tate heights.

Dinner



Abstract of Talks

Speaker: Fredrik Strömberg

Title: On computational aspects of vector-valued modular forms for the Weil representation.

Abstract: I will discuss computational aspects of the Weil representation associated to the discriminant group of the lattice \mathbb{Z} together with $x \mapsto Nx^2$ for an integer $N \geq 1$ and the associated vector-valued modular forms. In particular I will consider the computation of holomorphic and non-holomorphic Poincaré series.

Speaker: Ben Kane

Title: Equidistribution of Heegner Points and Quadratic Forms.

Abstract: n.a.

Speaker: Ulf Kühn

Title: Scattering constants and Neron-Tate heights.

Abstract: The constant term in $s = 1$ of a nonholomorphic Eisenstein series $E(\tau, s)$ may be seen as a Green function for a cusp. This allows to show that Neron-Tate heights of degree zero divisors on algebraic curves are closely related to scattering constants coming from particular hyperbolic uniformisations of that curves. We explain this relation and illustrate it in an example.