

Schedule of talks

All lectures will be held in the main lecture hall of the MPIM.

Monday, May 25

9:00 - 9:30	Tea
9:30 - 10:15	Sander Zwegers <i>An account of the mock theta functions</i>
10:25 - 11:05	Don Zagier <i>Mock modular forms – theory and examples</i>
11:20 - 11:50	Jens Funke <i>Mock theta functions in the 70's: Hirzebruch-Zagier revisited</i>
11:50 - 13:40	Lunch
13:40 - 14:25	Jan Bruinier <i>Mock theta functions and infinite products</i>
14:35 - 15:20	Tonghai Yang <i>CM values of automorphic green functions and a variant of the Gross-Zagier formula</i>
15:30 - 16:00	Ozlem Imamoglu <i>Mock modular forms, cycle integrals and rational period functions</i>
16:00 - 16:30	Tea
16:30 - 17:00	Pavel Guerzhoy <i>Congruences for CM mock modular forms of integral weight. Splitting primes.</i>
17:10 - 17:40	Zachary Kent <i>Congruences for CM mock modular forms of integral weight. Inert primes. Applications to AGM.</i>

Tuesday, May 26

- 9:00 - 9:45** Bruce Berndt
Ramanujan's contributions to theta functions
- 9:55 - 10:25** Karl Mahlburg
Asymptotics for crank and rank moments
- 10:25 - 10:55** **Tea**
- 10:55 - 11:40** Jeremy Lovejoy
q-series and class numbers
- 11:50 - 12:20** Yun-Seo Choi
The basic bilateral hypergeometric series and the mock theta functions
- 12:20 - 13:55** **Lunch**
- 13:55 - 14:25** Soon-Yi Kang
Traces of class invariants and Hilbert class polynomials for orders
- 14:35 - 15:05** Paul Jenkins
Coefficient congruences for certain weakly holomorphic modular forms
- 15:15 - 16:00** Sander Zwegers
Rank-crank type PDE's for higher level Appell functions
- 16:00 - 16:30** **Tea**
- 16:30 - 17:00** Amanda Folsom
Kac-Wakimoto character formulas and universal mock theta functions
- 17:10 - 17:40** Robert Osburn
Automorphic properties of generating functions for generalized rank moments and Durfee symbols

Wednesday, May 27

- 9:00 - 9:45** Nils Skoruppa
Weil representations of finite quadratic modules and Jacobi forms of critical weight
- 9:55 - 10:25** Ben Kane
Multiplicative q -hypergeometric series and real quadratic UFDs
- 10:25 - 10:55** **Tea**
- 10:55 - 11:40** Solomon Friedberg
Metaplectic Eisenstein series, twisted Euler products, and crystal graphs
- 11:55 - 12:25** YoungJu Choie
Period relations for Jacobi forms
- 12:25 - 14:30** **Lunch**
- 14:30 - 15:15** Valery Gritsenko
The Siegel modular forms with the simplest divisor
- 15:30 - 16:00** Aloys Krieg
Lattices with a complex structure and their modular forms
- 16:00 - 16:30** **Tea**

Thursday, May 28

- 9:00 - 9:45** Lothar Goettsche
Wallcrossing, theta functions, and strange duality for line bundles on moduli spaces of sheaves on algebraic surfaces
- 9:55 - 10:25** Kazuhiro Hikami
Superconformal algebras and mock theta functions
- 10:25 - 10:55** **Tea**
- 10:55 - 11:25** Andreas Malmendier
 $SO(3)$ -Donaldson invariants of CP^2 and mock theta functions
- 11:35 - 12:20** Atish Dabholkar
Quantum black holes and mock modular forms
- 12:20 - 14:00** **Lunch**
- 14:00 - 14:45** Werner Nahm
 q -hypergeometric functions in quantum field theory
- 15:00 - 16:00** Don Zagier
Quantum modular forms
- 16:00 - 16:30** **Tea**
- 16:30 - 17:00** Scott Ahlgren
Congruences for cusp forms of half-integral weight
- 18:00** **Conference dinner at**
Ristorante - Pizzeria Tuscolo (Kaiser-Karl-Ring 63)

Friday, May 29

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| 9:00 - 9:45 | Winfried Kohnen
<i>Sign changes of Fourier coefficients of modular forms of half-integral weight</i> |
| 10:00 - 10:30 | Lynne Walling
<i>Quadratic forms, Siegel modular forms, and a Hecke correspondence</i> |
| 10:30 - 11:00 | Tea |
| 11:00 - 11:30 | David Yuen
<i>Weight 8 Siegel forms for the theta group</i> |
| 11:40 - 12:10 | Cris Poor
<i>Sets of Fourier coefficients that determine congruence in genus two</i> |
| 12:10 - 13:50 | Lunch |
| 13:50 - 14:20 | Bernhard Heim
<i>Recovering class numbers from special L-values</i> |
| 14:30 - 15:00 | Dohoon Choi
<i>Poincare series and the divisors of modular forms</i> |
| 15:00 - 15:30 | Tea |