

Workshop on Analytic Number Theory

Monday, March 15, 2010 (All day) - Friday, March 19, 2010 (All day)
2009-2010

Simonyi Hall Seminar Room

The program will have an emphasis on analytic aspects, and particular topics that will be covered include the distribution of prime numbers, sieves, L functions, special sequences as well as additive and combinatorial methods, exponential sums, spectral analysis and modular forms. The workshop will highlight recent developments connected with the program.

Organizers:

Enrico Bombieri - Institute for Advanced Study and Peter Sarnak - Institute for Advanced Study/Princeton University

Participants (including speakers)

Valentin Blomer, University of Toronto

Jean Bourgain, IAS

Pietro Corvaja, University of Udine

Regis De La Breteche, Institut de Mathematiques de Jussieu

Ben Green, University of Cambridge

Gergely Harcos, Alfred Renyi Institute of Mathematics

Roger Heath-Brown, University of Oxford

Henryk Iwaniec, Rutgers University

Nick Katz, Princeton University

Xiaoqing Li, IAS / SUNY-Buffalo

Hugh Montgomery, University of Michigan

Peter Sin, University of Florida

John Thompson, University of Florida

Workshop on Analytic Number Theory

Peter Varju, Princeton University

Robert Vaughan, Penn State University

Trevor Wooley, University of Bristol

Agenda - (all talks with take place in Simonyi Hall Seminar Room)

Monday, March 15

11:30 am Henryk Iwaniec, Rutgers Univ, Asymptotic large sieve and the critical zeros

12:30 pm Lunch - Dining Hall

2:30 pm John Thompson, University of Florida, $SL(2, \mathbb{Z})$, Dirichlet series, and $\gamma^1(15)$

3:30 pm Tea break - Fuld Hall Common Room

4:00 pm Gergely Harcos, Alfred Renyi Institute of Mathematics, The Burgess bound for twisted Hilbert modular L-functions

Tuesday, March 16

11:30 am Valentin Blomer, Univ Toronto, Subconvexity for twisted L-functions on $GL(3)$

12:30 pm Lunch - Dining Hall

2:30 pm Ben Green, University of Cambridge, Linear approximate groups

3:30 pm Tea break - Fuld Hall Common Room

4:00 pm Jean Bourgain, IAS, Total eigenfunctions and the distribution of lattice points on spheres

Wednesday, March 17

11:30 am Xiaoqing Li, IAS/SUNY-Buffalo, L-functions for high rank groups

12:30 pm Lunch - Dining Hall

2:30 pm Trevor Wooley, University of Bristol, Rational points and Weyl sums

Workshop on Analytic Number Theory

3:30 pm Tea break - Fuld Hall Common Room

4:00 pm TBA

Thursday, March 18

11:30 am Enrico Bombieri, IAS, Anomalous intersections

12:30 pm Lunch - Dining Hall

2:30 pm Nick Katz, Princeton University, Mysteries around Heilbronn sums

3:30 pm Tea break - Fuld Hall Common Room

4:00 pm Peter Sarnak, IAS, The affine sieve

Friday, March 19

11:30 am Regis de la Breteche, Institut de Mathematique de Jussieu, Methods from analytic number theory to count rational points on $\text{Ch}^{\text{atelet}}$ surfaces

12:30 pm Lunch - Dining Hall

2:30 pm Peter Varju, Princeton University, Expansion in $\text{SLd}(\mathbb{Z}/q\mathbb{Z})$, q square-free

3:30 pm Tea break - Fuld Hall Common Room

4:00 pm Roger Heath-Brown, University of Oxford, Counting rational points on cubic curves

Registration form ([click here](#))

REGISTRATION FOR THE MEALS AND WORKSHOP IS REQUIRED. (Speakers do not need to register.)

Although there is no registration fee, because SEATING IS LIMITED BOTH IN THE CONFERENCE ROOM AND IN OUR DINING HALL, you are requested to register if you wish to attend all or part of the workshop. In addition, in order for our chef to prepare enough food, we need to have a headcount for the meals.

Please note the workshop attendees are expected to pay for their lunch. Approximate range of prices is \$4.00 for a salad to \$9.00 for an entree. Vegetarian lunches will be available. Only cash is accepted at the cash registers. Credit cards can not be accepted.

Transportation and Housing

Information regarding transportation and accommodations in the Princeton area can be found at <http://www.princetonol.com/local>. Additional local accommodations can be found at <http://www.expedia.com> by searching for hotels/motels in the Princeton area. Please note that if you are staying on Route 1 you should inquire whether the hotel has a shuttle service to local businesses in Princeton.

Directions to IAS

<http://www.ias.edu/about/directions.php>

terms:

- [workshop](#)