

# CANT 2011 Program

**Tuesday, May 24, 2011**  
**CUNY Graduate Center, Room C198**

- 8:30 - 9:00 a.m. Registration and coffee
- 9:00 - 9:25 a.m. **Peter Hegarty**, Chalmers University of Technology, Sweden  
“Sumsets, exponents and growth of graph powers”
- 9:30 - 10:20 a.m. **Seva Lev**, University of Haifa, Israel  
“Doubling-critical sets in binary spaces”
- 10:40 - 11:05 a.m. **Željka Ljujić**, CUNY Graduate Center  
“A lower bound for the size of a sum of dilates”
- 11:10 - 12:00 a.m. **Giorgis Petridis**, University of Cambridge, England  
“The Plünnecke-Ruzsa inequality, 1”
- 12:00 - 1:30 p.m. **Lunch and math movie**
- 1:30 - 1:55 p.m. **Charles Helou**, Penn State - Brandywine  
“Representations by near quadratic sequences”
- 2:00 - 2:50 p.m. **Matt Devos**, Simon Fraser University, Canada  
“Transforms and Kneser’s addition theorem in groups”
- 3:00 - 3:25 p.m. **Aviezri Fraenkel**, Weizmann Institute of Science, Israel  
“Aperiodic subtraction games”
- 3:30 - 3:55 p.m. **Urban Larsson**, Chalmers University of Technology, Sweden  
“From heaps of matches to the limits of computability”
- 4:00 - 4:25 p.m. **Jerry Hu**, University of Houston - Victoria  
“The probability that  $m$  positive integers are  $k$ -wise relatively prime”
- 4:30 - 5:00 p.m. **Problem session 1**, led by Peter Hegarty
- 5:00 - 6:30 p.m. **Wine and cheese reception**  
in the mathematics common room on the fourth floor

# CANT 2011 Program

Wednesday, May 25, 2011  
CUNY Graduate Center, Room C198

- 8:30 - 9:00 a.m. Registration and coffee
- 9:00 - 9:25 a.m. **Rishi Nath**, York College (CUNY)  
“Simultaneous core partitions”
- 9:30 - 9:55 a.m. **Jonathan Sondow**, New York  
“Ramanujan primes: bounds, runs, twins, and gaps”
- 10:00 - 10:25 a.m. **Nathan Kaplan**, Harvard University  
“Counting semigroups of genus  $g$  and Weierstrass semigroups of algebraic curves”
- 10:40 - 11:05 a.m. **Renling Jin**, College of Charleston  
“One set fits all”
- 11:10 - 12:00 a.m. **Giorgis Petridis**, University of Cambridge, England  
“The Plünnecke-Ruzsa inequality, 2”
- 12:00 - 1:30 p.m. **Lunch and math movie**
- 1:30 - 1:55 p.m. **Mel Nathanson**, CUNY Graduate Center and Lehman College  
“Hamidoune’s method in additive number theory, 1”
- 2:00 - 2:50 p.m. **Matt Devos**, Simon Fraser University, Canada  
”A generalization of Kneser’s theorem to nonabelian groups”
- 3:00 - 3:25 p.m. **Lan Nguyen**  
“On the Grothendieck group associated to quantum arithmetic”
- 3:30 - 3:55 p.m. **Omar Kihel**, Brock University, Canada  
“On permutation binomials over finite fields”
- 4:00 - 4:25 p.m. **Jonathan Cutler**, Montclair State University  
“Extremal problems for homomorphisms”
- 4:30 - 5:00 p.m. **Problem session 2**, led by Kevin O’Byrant
- 5:00 - 6:30 p.m. **Wine and cheese reception**  
in the mathematics common room on the fourth floor

# CANT 2011 Program

**Thursday, May 26, 2011**  
**CUNY Graduate Center, Room 9204**

- 8:30 - 9:00 a.m. Registration and coffee
- 9:00 - 9:25 a.m. **Scott Chapman**, Sam Houston State University  
“Factorizations of algebraic integers, block monoids, and additive number theory”
- 9:30 - 9:55 a.m. **Mei-Chu Chang**, University of California - Riverside  
“Character sums with smooth moduli”
- 10:00 - 10:25 a.m. **Neil Lyall**, University of Georgia  
“Polynomial patterns in subsets of the integers”
- 10:40 - 11:05 a.m. **Alex Kontorovich**, SUNY at Stony Brook  
“On Zaremba’s Conjecture”
- 11:10 - 12:00 a.m. **Giorgis Petridis**, University of Cambridge, England  
“The Plünnecke-Ruzsa inequality, 3”
- 12:00 - 1:30 p.m. **Lunch and math movie**
- 1:30 - 1:55 p.m. **Mel Nathanson**, CUNY Graduate Center and Lehman College  
“Hamidoune’s method in additive number theory, 2”
- 2:00 - 2:50 p.m. **Matt Devos**, Simon Fraser University, Canada  
“Toward the Schrijver-Seymour conjecture”
- 3:30 - 3:55 p.m. **Steven J. Miller**, Williams College  
“Cookie Monster meets the Fibonacci numbers, II.  
Mmmmmm – theorems!”
- 4:00 - 4:25 p.m. **Steven J. Miller, Sean C. Pegado, Sidney Luc Robinson**,  
Williams College  
“Explicit Constructions of Generalized MSTD Sets”
- 4:30 - 5:00 p.m. **Problem session 3**, led by Alex Kontorovich
- 5:00 - 6:00 p.m. **Wine and cheese reception**
- 6:30 - 8:30 p.m. **Conference banquet** at Grand Sichuan Restaurant,  
227 Lexington Avenue (between 33rd and 34th Streets)

# CANT 2011 Program

**Friday, May 27, 2011**  
**CUNY Graduate Center, Room C198**

- 8:30 - 9:00 a.m. Registration and coffee
- 9:00 - 9:25 a.m. **Paul Baginski**, Université Claude Bernard Lyon, France  
“Factoring within arithmetic progressions”
- 9:30 - 9:55 a.m. **Alex Iosevich**, University of Rochester  
“Sum-product theory over  $\mathbf{Z}_{p^l}$ ”
- 10:00 - 10:25 a.m. **Thai Hoang Le**, Institute for Advanced Study  
“Problems and results on intersective sets”
- 10:40 - 11:05 a.m. **Steve Senger**, University of Missouri  
“Consequences and connections of recent results  
in geometric combinatorics”
- 11:10 - 12:00 a.m. **Giorgis Petridis**, University of Cambridge, England  
“The Plünnecke-Ruzsa inequality, 4”
- 12:00 - 1:30 p.m. **Lunch and math movie**
- 1:30 - 1:55 p.m. **Mel Nathanson**, CUNY Graduate Center and Lehman College  
“Hamidoune’s method in additive number theory, 3”
- 2:00 - 2:50 p.m. **Matt Devos**, Simon Fraser University, Canada  
“Small separations in vertex-transitive graphs”
- 3:00 - 3:25 p.m. **Hoi H. Nguyen**, University of Pennsylvania  
“Inverse Littlewood-Offord theorems for quadratic forms  
and the singularity of random symmetric matrices”
- 3:30 - 3:55 p.m. **Mizan R. Khan**, Eastern Connecticut State University  
“Revisiting Toom’s proof of Bulgarian Solitaire”
- 4:00 - 4:30 p.m. **Problem session 4**, led by Seva Lev
- 4:30 - 5:30 p.m. **Wine and cheese reception**  
in the mathematics common room on the fourth floor
- 5:30 - 8:00 p.m. **Excursion to the Museum of Modern Art**