

# CANT 2012 Program

**Tuesday, May 22, 2012**  
**CUNY Graduate Center, Room C198**

- 8:30 - 9:15 a.m. Registration and coffee in the Math Lounge, 4th floor
- 9:30 - 10:00 a.m. **Steven J. Miller**, Williams College  
“To infinity and beyond: Gaps between summands in Zeckendorf decompositions”
- 10:10 - 10:40 a.m. **Kevin O’Bryant**, College of Staten Island (CUNY)  
“Fractional Parts of Roots”
- 10:50 - 11:20 a.m. **Sandra Kingan**, Brooklyn College (CUNY)  
“Unlabeled equivalence for matroids representable over finite fields”
- 11:30 - 12:30 p.m. **Alex Kontorovich**, Yale University  
“From Apollonius to Zaremba: Local-global phenomena in orbits, 1”
- 12:30 - 2:00 p.m. **Lunch and math movie**
- 2:00 - 2:50 p.m. **Mel Nathanson**, Lehman College (CUNY)  
“The Calkin-Wilf tree and a forest of linear fractional transformations”
- 3:00 - 3:30 p.m. **Charles Helou**, Penn State Brandywine  
“Representation functions: Generating series, and lower and upper limits”
- 3:40 - 4:20 p.m. **Renling Jin**, College of Charleston  
“Plünnecke for Densities”
- 4:30 - 5:00 p.m. **Problem session 1**, led by Renling Jin
- 5:00 - 7:00 p.m. **Wine and cheese reception**  
in the Math Lounge, 4th floor

# CANT 2012 Program

**Wednesday, May 23, 2012**  
**CUNY Graduate Center, Room 9206**

- 8:30 - 9:15 a.m. Registration and coffee in the Math Lounge, 4th floor
- 9:30 - 10:00 a.m. **Mei-Chu Chang**, University of California-Riverside  
“Lattice points in small boxes over finite fields”
- 10:10 - 10:40 a.m. **Oleg Lazarev**, Princeton University  
“Distribution of missing sums in sumsets”
- 10:50 - 11:20 a.m. **Ryan Ronan**, Cooper Union  
“The distribution of generalized Ramanujan primes”
- 11:30 - 12:30 p.m. **Alex Kontorovich**, Yale University  
“From Apollonius to Zaremba: Local-global phenomena in orbits, 2”
- 12:30 - 2:00 p.m. **Lunch and math movie**
- 2:00 - 2:50 p.m. **Alex Iosevich**, University of Rochester  
”A hands-on tutorial on obtaining incidence results in geometric combinatorics by linear and multi-linear analytic methods, 1”
- 3:00 - 3:30 p.m. **Xian-Jin Li**, Brigham Young University  
“On the Hilbert inequality”
- 3:40 - 4:10 p.m. **Steven Senger**, University of Delaware  
“Combinatorial estimates of the size of an image set”
- 4:20 - 4:50 p.m. **Nathan Kaplan**, Harvard University  
“Numerical semigroups and hook sets of partitions”
- 5:00 - 5:30 p.m. **Problem session 2**, led by Steve Miller
- 6:30 - 8:30 p.m. **Conference dinner** at IchiUmi:  
Japanese Sushi and Seafood Buffet  
6 East 32nd Street.

# CANT 2012 Program

**Thursday, May 24, 2012**  
**CUNY Graduate Center, Room 9206**

- 8:30 - 9:15 a.m. Registration and coffee in the Math Lounge, 4th floor
- 9:30 - 10:00 a.m. **Christopher Hanusa**, Queens College (CUNY)  
"Self-conjugate core partitions: it's storytime!"
- 10:10 - 10:40 a.m. **Rishi Nath**, York College (CUNY)  
"The Durfee square and the quotient of a self-conjugate partition"
- 10:50 - 11:20 a.m. **Geoff Iyer**, University of Michigan, and **Liyang Zhang**, Williams College  
"Constructing generalized sum-dominant sets"
- 11:30 - 12:30 p.m. **Alex Kontorovich**, Yale University  
"From Apollonius to Zaremba: Local-global phenomena in orbits, 3"
- 12:30 - 2:00 p.m. **Lunch and math movie**
- 2:00 - 2:50 p.m. **Alex Iosevich**, University of Rochester  
"A hands-on tutorial on obtaining incidence results in geometric combinatorics by linear and multi-linear analytic methods, 2"
- 3:00 - 3:30 p.m. **Jonathan Sondow**, New York  
"A weak Schanuel conjecture implies Gel'fond's conjecture for power towers"
- 3:40 - 4:10 p.m. **Urban Larsson**, Chalmers University of Technology and  
University of Gothenburg, Göteborg, Sweden  
"(1, 2) GDWN splits"
- 4:20 - 4:50 p.m. **Neil Lyall**, University of Georgia  
"Improvements and extensions of two theorems of Sarközy"
- 5:00 - 5:30 p.m. **Problem session 3**, led by Alex Iosevich

# CANT 2012 Program

**Friday, May 25, 2012**  
**CUNY Graduate Center, Room 4102**

- 8:30 - 9:00 a.m. Registration and coffee in the Room 4102
- 9:00 - 9:20 a.m. **Frederic Gilbert**, Ecole Polytechnique, Paris  
“Around the Erdős-Turán conjecture: Bounded representation functions and vertex cover problems”
- 9:30 - 10:00 a.m. **Emel Demirel**, Bergen County College  
“Greatest common divisors of polynomial solutions to the diophantine equation  $x^2 + y^3 = 6912z^2$ ”
- 10:10 - 10:40 a.m. **Wei Zhang**, Columbia University  
“Local character expansion and L-values”
- 10:50 - 11:20 a.m. **Jerry Hu**, University of Houston - Victoria  
“Pairwise relative primality of positive integers”
- 11:30 - 12:30 p.m. **Alex Kontorovich**, Yale University  
“From Apollonius to Zaremba: Local-global phenomena in orbits, 4”
- 12:30 - 2:00 p.m. **Lunch and math movie**
- 2:00 - 2:50 p.m. **Alex Iosevich**, University of Rochester  
”A hands-on tutorial on obtaining incidence results in geometric combinatorics by linear and multi-linear analytic methods, 3”
- 3:00 - 3:30 p.m. **Mizan R. Khan**, Eastern Connecticut State University  
“The number of distinct Euclidean distances of points on a modular hyperbola to the origin”
- 3:40 - 4:10 p.m. **Kerry Ojakian**, St. Joseph’s College, New York  
“Cops and Robber on the Hypercube”
- 4:20 - 4:50 p.m. **John Bryk**, John Jay College (CUNY)  
“Counting Roots of Polynomials Modulo Primes”
- 5:00 - 5:30 p.m. **Problem session 4**, led by Kevin O’Byrant