CANT 2013 Program

Tuesday, May 21, 2013

9:00 - 9:30 a.m.   **David Covert**, University of Missouri - St. Louis
"Geometric configurations in $\mathbf{Z}_q$"

9:40 - 10:10 a.m.   **Christopher R. H. Hanusa**, Queens College (CUNY)
"Applications of simultaneous core partitions"

10:20 - 10:50 a.m.   **Gautami Bhowmik**, Université de Lille, France
"Lattice polyhedra in additive combinatorics"

11:00 - 11:30 a.m.   **Kevin Henriot**, Université de Montréal, Canada
"On arithmetic progressions in $A + B + C$"

11:40 - 12:30 p.m.   **Giorgis Petridis**, University of Rochester
"Upper bound for higher sumsets with different summands"

12:30 - 2:00 p.m.   **Lunch and math movie**

2:00 - 2:30 p.m.   **Derrick Hart**, Kansas State University
"Sumsets of multiplicative subgroups in Z_p

2:40 - 3:10 p.m.   **Arnab Bhattacharyya**, DIMACS, Rutgers University
"Every locally characterized affine-invariant property is testable"

3:20 - 3:50 p.m.   **Delaram Kahrobaei**, New York City Tech (CUNY)
"Searching for a secure platform for cryptology"

4:00 - 4:15 p.m.   **Richard Magner**, Eastern Connecticut State University
"Ordinary lines and modular hyperbolas"

4:20 - 4:35 p.m.   **Amanda Bower**, University of Michigan - Dearborn
"Coordinate sum and difference sets of d-dimensional modular hyperbolas"

4:40 - 4:55 p.m.   **Ginny Hogan**, Stanford University
"When generalized sumsets are difference dominated"

5:00 - 5:30 p.m.   **Steven J. Miller**, Williams College
"Mind the gap: Distribution of gaps in generalized Zeckendorf decompositions"

5:30 -6:00 p.m.   **Problem session 1**, led by Steve Miller

6:00 - 7:00 p.m.   **Wine and cheese reception** in the Math Lounge, 4th floor

CANT 2013 Program

Wednesday, May 22, 2013

9:00 - 9:30 a.m. **Nathan Kaplan**, Harvard University
"Higher weight enumerators for codes and algebraic geometry"

9:40 - 10:10 a.m. **Paul Baginski**, Smith College
"Length multiset-complete Krull monoids"

10:20 - 10:40 a.m. **Dmitry Zhelezov**, Chalmers Institute of Technology, Sweden
"Product sets cannot contain long arithmetic progressions"

10:50 - 11:20 a.m. **Steven Senger**, University of Delaware
"A multi-scale approach to the Erdős-Falconer type single distance problems"

11:30 - 12:30 p.m. **Tom Sanders** , Oxford University
"The structure theory of set addition revisited, 1"

12:30 - 2:00 p.m. **Lunch and math movie**

2:00 - 2:50 p.m. **Matthew Devos**, Simon Fraser University, Canada
"The structure of critical product sets"

3:00 - 3:20 p.m. **Tomas Boothby**, Simon Fraser University
"Almost critical products sets and small edge cuts in almost symmetric graphs"

3:30 - 4:00 p.m. **Alex Rice**, Bucknell University
"Squares and primes in generalized arithmetic progressions"

4:10 - 4:40 p.m. **Neil Lyall**, University of Georgia
"A purely combinatorial approach to simultaneous polynomial recurrence mod 1"

4:50 - 5:30 p.m. **Seva Lev**, University of Haifa, Israel
"How many solutions can $a \pm b = 2c$ have?"

5:30 -6:00 p.m. **Problem session 2**, led by Seva Lev

6:00 - 7:00 p.m. **Wine and cheese reception**
in the Math Lounge, 4th floor

CANT 2013 Program

Thursday, May 23, 2013

9:00 - 9:30 a.m.   **Jeff Breeding II**, Fordham University
"The Jacobsthal function and dimensions of spaces of Siegel modular forms"

9:35 - 10:05 a.m.   **Omar Kihel**, Brock University
"Recognizing the primes using the permutations"

10:15 - 10:45 a.m.   **Thai Hoang Le**, University of Texas
"Sums of reciprocals of fractional parts"

10:50 - 11:20 a.m.   **Jonathan Sondow**, New York
"Ramanujan, Robin, the Riemann Hypothesis, and recent results"

11:30 - 12:30 p.m.   **Tom Sanders** , Oxford University
"The structure theory of set addition revisited, 2"

12:30 - 2:00 p.m.   **Lunch and math movie**

2:00 - 2:50 p.m.   **Javier Cilleruelo**, University of Madrid, Spain
"Infinite Sidon sequences"

3:00 - 3:30 p.m.   **Jerry Hu**, University of Houston - Victoria
"The probability that algebraic integers are k-wise relatively prime"

3:35 - 3:55 p.m.   **Satyanand Singh**, New York City Tech (CUNY)
"Exponential diophantine equations of Conway and Nathanson"

4:00 - 4:25 p.m.   **Rishi Nath**, York College (CUNY)
"Ten facts about self-conjugate partitions"

4:30 - 4:55 p.m.   **Mohamed El Bachraoui**, United Arab Emirates University, UAE
"A gamma function in two variables"

5:00 - 5:30 p.m.   **Kevin O'Bryant**, College of Staten Island (CUNY)
"A combinatorial problem arising from Padé approximation"

5:30 -6:00 p.m.   **Problem session 3**, led by Kevin O'Bryant

CANT 2013 Program

Friday, May 24, 2013

9:00 - 9:25 a.m. **Sandra Kingan**, Brooklyn College (CUNY)
"Strong splitter theorem"

9:30 - 10:10 a.m. **Leopold Flatto**, Bell Labs
"The dixie cup problem and the FKG inequality"

10:20 - 10:50 a.m. **George Grossman**, Central Michigan University
"Combinatorial identities with Fibonacci and Lucas numbers"

10:55 - 11:25 a.m. **Brooke Orosz**, Essex County College
"A construction of generalized 'More Sum than Difference Sets' "

11:30 - 12:30 p.m. **Tom Sanders** , Oxford University
"The structure theory of set addition revisited, 3"

12:30 - 2:00 p.m. **Lunch and math movie**

2:00 - 2:50 p.m. **Mauro Di Nasso**, University of Pisa, Italy
"Applications in combinatorial number theory of
iterated nonstandard extensions and idempotent ultrafilters"

3:00 - 3:30 p.m. **Thomas Bloom**, University of Bristol, UK
"Sum-product estimates in function fields"

3:40 - 4:10 p.m. **Mel Nathanson**, Lehman College (CUNY)
"Cantor packing polynomials in sectors"

4:20 - 5:20 p.m. **Renling Jin**, College of Charleston
"Detailed structure for Freiman's $3k - 3$ theorem"

5:20 -6:00 p.m. **Problem session 4**, led by Renling Jin

6:00 - 7:00 p.m. **Wine and cheese reception**
in the Math Lounge, 4th floor