

CANT 2020 Zoom Program

Monday, June 1, 2020

Session chair: Steven Miller, Williams College

- 9:00 - 9:25 a.m. **Robert Hough**, SUNY at Stony Brook
The 15 puzzle problem
- 9:30 - 9:55 a.m. **Mel Nathanson**, Lehman College and CUNY Graduate Center
The fundamental theorems of additive number theory
- 10:00 - 10:25 a.m. **Péter Pál Pach**, Budapest University of Technology and Economics
Counting subsets avoiding certain multiplicative configurations
- 10:30 - 10:55 a.m. **Aled Walker**, CRM, Montréal, and Trinity College, Cambridge
A tight structure theorem for sumsets
- 11:00 - 11:25 a.m. **Alfred Geroldinger**, University of Graz, Austria
Zero-sum sequences over finite abelian groups and their sets of lengths
- 11:30 - 11:55 a.m. **Arindam Biswas**, Technion - Israel Institute of Technology
On minimal complements and co-minimal pairs in groups
- 12:00 - 12:25 p.m. **Michael Curran**, Williams College
Ehrhart theory and an explicit version of Khovanskii's theorem
- 12:30 - 1:00 p.m. **Lunch**

CANT 2020 Zoom Program

Monday, June 1, 2020

Session chair: Kevin O'Bryant, College of Staten Island
and CUNY Graduate Center

- 1:00 -1:25 p.m. **Pierre-Yves Bienvenu**, Université de Lyon
Additive bases in infinite abelian semigroups, I
- 1:30 -1:55 p.m. **Thai Hoang Lê**, University of Mississippi
Additive bases in infinite abelian semigroups, II
- 2:00 - 2:25 p.m. **Alex Cohen**, Yale University
A Sylvester-Gallai result in the complex plane
- 2:30 - 2:55 p.m. **Theresa C. Anderson**, Purdue University
How numbers interact with curves
- 3:00 - 3:25 p.m. **Michael Bennett**, University of British Columbia
Differences between perfect powers
- 3:30 - 3:55 p.m. **Wolfgang Schmid**, University of Paris 8, Saint-Denis, Paris
Plus-minus weighted zero-sum sequences and applications
to factorizations of norms of quadratic integers
- 4:00 - 4:25 p.m. **Steve Senger**, Missouri State University
Point configurations determined by dot products
- 4:30 - 4:55 p.m. **Jeffrey C. Lagarias**, University of Michigan
Partial factorizations of products of binomial coefficients

CANT 2020 Zoom Program

Tuesday, June 2, 2020

Session chair: **Oriol Serra**, Universitat Politècnica de Catalunya, Barcelona

- 9:00 - 9:25 a.m. **Paolo Leonetti**, Università Bocconi, Italy
On the density of sumsets
- 9:30 - 9:55 a.m. **Kåre Gjaldbæk**, CUNY Graduate Center
Noninjectivity of nonzero discriminant polynomials
and applications to packing polynomials
- 10:00 - 10:25 a.m. **Gautami Bhowmik**, Université de Lille, France
Asymptotics of products of L -functions
- 10:30 - 10:55 a.m. **Lajos Hajdu**, University of Debrecen, Hungary
Skolem's conjecture for a family of exponential equations
- 11:00 - 11:25 a.m. **Leonid Fel**, Technion – Israel Institute of Technology, Israel
A sum of negative degrees of the gaps values in two-generated
numerical semigroups and identities for the Hurwitz zeta function
- 11:30 - 11:55 a.m. **George E. Andrews**, Pennsylvania State University
Separable integer partition (SIP) classes
- 12:00 - 1:00 p.m. **Lunch**

CANT 2020 Zoom Program

Tuesday, June 2, 2020

Session chair: Jeffrey Lagarias, University of Michigan

- 1:00 -1:25 p.m. **Norbert Hegyvári**, Eötvös University and Rényi Institute, Budapest
Hilbert cubes meet arithmetic sets
- 1:30 -1:55 p.m. **George Shakan**, University of Oxford, UK
An analytic approach to the cardinality of sumsets
- 2:00 - 2:25 p.m. **I.D. Shkredov**, Steklov Mathematical Institute, Russia
Growth in Chevalley groups and some applications
- 2:30 - 2:55 p.m. **Pablo Soberón**, Baruch College (CUNY)
The topological Tverberg problem beyond prime powers
- 3:00 - 3:25 p.m. **William Keith**, Michigan Technological University
Part-frequency matrices of partitions: New developments and related bijections
- 3:30 - 3:55 p.m. **Ariane Masuda**, New York City Tech(CUNY)
Rédei permutations with cycles of length 1 and p
- 4:00 - 4:25 p.m. **Huixi Li**, University of Nevada, Reno
On the connection between the Goldbach conjecture
and the Elliott-Halberstam conjecture
- 4:30 - 4:55 p.m. **Brad Isaacson**, New York City Tech (CUNY)
Formulas for some exponential and trigonometric character sums

CANT 2020 Zoom Program

Wednesday, June 3, 2020

Session chair: Alfred Geroldinger, University of Graz,
Austria

- 9:00 - 9:25 a.m. **Yong-Gao Chen**, Nanjing Normal University, P. R. China
On a problem of Erdős, Nathanson and Sárközy
- 9:30 - 9:55 a.m. **Angel Kumchev**, Towson University
Bounds for discrete maximal functions of codimension 3
- 10:00 - 10:25 a.m. **Oriol Serra**, Universitat Politècnica de Catalunya, Barcelona
Extremal sets for Freiman's theorem
- 10:30 - 10:55 a.m. **Bhuvanesh Rao Patil**, PDF at IISER Berhampur, India
Geometric progressions in syndetic sets
- 11:00 - 11:25 a.m. **Amanda Montejano**, Universidad Nacional Autónoma de México
Zero-sum squares in bounded discrepancy $\{-1, 1\}$ -matrices
- 11:30 - 11:55 a.m. **Jakub Konieczny**, Hebrew University of Jerusalem, Israel
Automatic multiplicative sequences
- 12:00 - 1:00 p.m. **Lunch**

CANT 2020 Zoom Program

Wednesday, June 3, 2020

Session chair: **Amanda Montejano**, Universidad Nacional
Autónoma de México

- 1:00 - 1:25 p.m. **Carl Pomerance**, Dartmouth College
Symmetric primes
- 1:30 - 1:55 p.m. **Jared Duker Lichtman**, University of Oxford
The Erdős primitive set conjecture
- 2:00 - 2:25 p.m. **Nathan McNew**, Towson University
Primitive sets in function fields
- 2:30 - 2:55 p.m. **Kevin O'Bryant**, College of Staten Island and CUNY Graduate Center
Rigorous proofs of stupid inequalities
- 3:00 - 3:25 p.m. **Michael Filaseta**, University of South Carolina
Two excursions in digitally delicate primes
- 3:30 - 3:55 p.m. **Hamed Mousavi**, Georgia Tech
A class of sums with unexpectedly high cancellation
- 4:00 - 4:25 p.m. **Wladimir Pribitkin**, College of Staten Island and CUNY Graduate Center
Recounting partitions in memory of Freeman Dyson
- 4:30 - 4:55 p.m. **Josiah Sugarman**, CUNY Graduate Center
On the spectrum of the Conway-Radin operator

CANT 2020 Zoom Program

Thursday, June 4, 2020

Session chair: **Sukumar Das Adhikari**, Ramakrishna
Mission Vivekananda Educational and Research Institute
(RKMVERI), India

- 9:00 - 9:25 a.m. **Florian Luca**, University of the Witwatersrand, South Africa
Prime factors of the Ramanujan τ -function
- 9:30 - 9:55 a.m. **Sándor Kiss**, Institute of Mathematics, Budapest University of Technology and Ecology
Sidon sets and bases
- 10:00 - 10:25 a.m. **Oliver Roche-Newton**, Johann Radon Institute for Computational
and Applied Mathematics (RICAM) Linz, Austria
Higher convexity and iterated sum sets
- 10:30 - 10:55 a.m. **Senia Sheydvasser**, CUNY Graduate Center
A twisted Euclidean algorithm
- 11:00 - 11:25 a.m. **Sophie Stevens**, Johann Radon Institute for Computational
and Applied Mathematics (RICAM) Linz, Austria
An update on the sum-product problem
- 11:30 - 11:55 a.m. **Trevor Wooley**, Purdue University
Condensation and densification for sets of large diameter
- 12:00 - 12:25 p.m. **Akshat Mudgal**, University of Bristol, UK
Arithmetic combinatorics on Vinogradov systems
- 12:30 - 1:00 p.m. **Lunch**

CANT 2020 Zoom Program

Thursday, June 4, 2020

Session chair: **George Andrews**, Pennsylvania State University

- 1:00 - 1:25 p.m. **Renling Jin**, College of Charleston
Szemerédi's theorem, nonstandardized and simplified
- 1:30 - 1:55 p.m. **Daniel Glasscock**, University of Massachusetts, Lowell
Uniformity in the dimension of sumsets of p - and q -invariant sets, with applications in the integers
- 2:00 - 2:25 p.m. **Neil Hindman**, Howard University
Tensor products in $\beta(\mathbb{N} \times \mathbb{N})$
- 2:30 - 2:55 p.m. **Robert W. Donley, Jr.**, Queensborough Community College (CUNY)
Semi-magic matrices for dihedral groups
- 3:00 - 3:25 p.m. **Sandra Kingan**, Brooklyn College (CUNY)
 H -critical graphs
- 3:30 - 3:55 p.m. **Ethan White**, University of British Columbia
Directions in $AG(2, p)$ and the clique number of Paley graphs
- 4:00 - 4:25 p.m. **Chi Hoi Yip**, University of British Columbia
On the clique number of Paley graphs of prime power order
- 4:30 - 4:55 p.m. **Javier Santiago**, University of Puerto Rico
On permutation binomials of index $q^{e-1} + q^{e-2} + \dots + 1$

CANT 2020 Zoom Program

Friday, June 5, 2020

Session chair: Ilya Shkredov, Stekhlov Institute, Moscow

- 9:00 - 9:25 a.m. **Yonutz V. Stanchescu**, Afeka Academic College, Tel Aviv, Israel
Structural results for small doubling sets in 3-dimensional Euclidean space
- 9:30 - 9:55 a.m. **Sukumar Das Adhikari**, India
Weighted generalization of a theorem of Gao
- 10:00 - 10:25 a.m. **Shalom Eliahou**, Université du Littoral Côte d'Opale, France
Some recent results on Wilf's conjecture
- 10:30 - 10:55 a.m. **Arie Bialostocki**, University of Idaho
Zero-sum Ramsey theory: Origins, present, and future
- 11:00 - 11:25 a.m. **Christian Elsholtz**, Graz University of Technology, Austria
Sums of unit fractions
- 11:30 - 11:55 a.m. **Giorgis Petridis**, The University of Georgia
A question of Bukh on sums of dilates
- 12:00 - 12:25 p.m. **Fei Peng**, Carnegie Mellon University
Distribution of missing differences in diffsets
- 12:30 - 1:00 p.m. **Lunch**

CANT 2020 Zoom Program

Friday, June 5, 2020

Session chair: **Gautami Bhowmik**, Université de Lille,
France

- 1:00 -1:25 p.m. **Harald Helfgott**, Universität Göttingen
Optimality of the logarithmic upper-bound sieve, with explicit estimates
- 1:30 -1:55 p.m. **Brian Hopkins**, Saint Peter's University
Restricted multicompositions
- 2:00 - 2:25 p.m. **James Sellers**, University of Minnesota, Duluth
Garden of Eden partitions for Bulgarian and Austrian solitaire
- 2:30 - 2:55 p.m. **Jing-Jing Huang**, University of Nevada, Reno
Diophantine approximation on affine subspaces
- 3:00 - 3:25 p.m. **Gabriel Conant**, University of Cambridge, UK
Small tripling with forbidden bipartite configurations
- 3:30 - 3:55 p.m. **Noah Luntzlar**, University of Michigan
Sets arising as minimal additive complements in the integers
- 4:00 - 4:25 p.m. **Dylan King**, Wake Forest University
Distribution of missing sums in correlated sumsets
- 4:30 - 4:55 p.m. **Alex Iosevich**, University of Rochester
On discrete and continuous variants of the distance graph