

CANT 2021 Program

Monday, May 24, 2021

- 8:00 - 8:25 a.m. **Sean Prendiville**, University of Lancaster, UK
Extremal Sidon sets are Fourier uniform, with arithmetic applications
- 8:30 - 8:55 a.m. **Péter Pál Pach**, TU Budapest, Hungary
Sum-full sets are not zero-sum-free
- 9:00 - 9:25 a.m. **Peter Bradshaw**, University of Bristol
Energy bounds for k -fold sums in very convex sets
- 9:30 - 9:55 a.m. **Sergei Konyagin**, Steklov Mathematical Institute, Moscow, Russia
Gaps between totients
- 10:00 - 10:30 a.m. **Break**
- 10:30 - 10:55 a.m. **Emmanuel Kowalski**, ETH Zürich, Switzerland
Some families of Sidon sets arising in algebraic geometry
- 11:00 - 11:25 p.m. **Misha Rudnev**, University of Bristol, UK
On distinct values of bilinear forms, cross-ratios, etc.
- 11:30 - 11:55 a.m. **Sophie Stevens**, Johan Radon Institute (RICAM), Austria
On sumsets of convex functions
- 12:00 - 12:30 p.m. **Zoltan Furedi**, University of Illinois at Urbana-Champaign
An upper bound on the size of Sidon sets
- 12:30 - 1:00 p.m. **Break**
- 1:00 - 1:25 p.m. **Aled Walker**, Trinity College Cambridge, UK
Effective results on the size and structure of sumsets
- 1:30 - 1:55 p.m. **Mikhail Gabdullin**, Steklov Mathematical Institute, Russia
Sets whose differences avoid squares modulo m

CANT 2021 Program

Monday, May 24, 2021

- 2:00 - 2:25 p.m. **Oleksiy Klurman**, University of Bristol, UK
On the “variants” of the Erdős discrepancy problem
- 2:30 - 2:55 a.m. **Trevor Dion Wooley**, Purdue University
Rudin, polynomials, and nested efficient congruencing
- 3:00 - 3:25 p.m. **Break**
- 3:30 - 3:55 p.m. **Wolfgang Schmid**, LAGA, University of Paris 8, France
Sequences of sets over finite abelian groups and weighted zero-sum sequences
- 4:00 - 4:25 p.m. **Noah Kravitz**, Princeton University
Inverse problems for minimal complements
- 4:30 - 4:55 p.m. **Robert Hough**, SUNY at Stony Brook
Subconvexity of the Shintani zeta functions
- 5:00 - 5:30 p.m. **Jeffrey Lagarias**, University of Michigan
Partial factorizations of a generalized product of binomial coefficients
- 5:30 - 6:00 p.m. **Break**
- 6:00 - 6:25 p.m. **Steve Senger**, Missouri State University
Upper and lower bounds on chains determined by angles
- 6:30 - 6:55 p.m. **Kåre Schou Gjørdal**, CUNY
Classification of quadratic packing polynomials on sectors of \mathbb{R}^2
- 7:00 - 7:30 p.m. **Catherine Yan**, Texas A & M University
Vector parking functions with rational boundary
- 7:30 - 7:55 p.m. **Tim Trudgian**, UNSW Canberra at ADFA
Twenty-four carats of Goldbach oscillations

CANT 2021 Zoom Program

Tuesday, May 25, 2021

- 8:00 - 8:25 a.m. **Audie Warren**, Johan Radon (RICAM), Austria
Additive and multiplicative Sidon sets
- 8:30 - 8:55 a.m. **Artūras Dubickas**, Vilnius University, Lithuania
On polynomial Sidon sequences
- 9:00 - 9:25 a.m. **Jörg Brüdern**, Universität Göttingen, Germany
Expander estimates for cubes
- 9:30 - 9:55 a.m. **Imre Z. Ruzsa**, Alfréd Rényi Institute of Mathematics, Hungary
Additive decomposition of square-free numbers
- 10:00 - 10:30 a.m. **Break**
- 10:30 - 10:55 a.m. **I. D. Shkredov**, Steklov Mathematical Institute, Moscow
On an application of higher energies to Sidon sets
- 11:00 - 11:25 p.m. **George Shakan**, University of Oxford
A large gap in a dilate of a set
- 11:30 - 11:55 a.m. **Anne de Roton**, Université de Lorraine, France
Critical sets with small sumset in \mathbb{R}
- 12:00 - 12:30 p.m. **Yuri Tschinkel**, New York University
Arithmetic properties of equivariant birational types
- 12:30 - 1:00 p.m. **Break**
- 1:00 - 1:25 p.m. **Aliaksei Semchankau**, Steklov Mathematical Institute, Moscow
A new bound for $A(A + A)$ for large sets
- 1:30 - 1:55 p.m. **Michael Curran**, University of Oxford, UK
Sumset structure, size, and Ehrhart theory

CANT 2021 Zoom Program

Tuesday, May 25, 2021

- 2:00 - 2:25 p.m. **James Wheeler**, University of Bristol, UK
Incidence theorems for modular hyperbolae in positive characteristic
- 2:30 - 2:55 a.m. **Lan Nguyen**, University of Wisconsin - Parkside
On the existence of bi-Lipschitz equivalences and quasi-isometries between arithmetic
- 3:00 - 3:25 p.m. **Break**
- 3:30 - 3:55 p.m. **Robert Vaughan**, Pennsylvania State University
On generating functions in additive number theory
- 4:00 - 4:25 p.m. **Souktik Roy**, University of Illinois at Urbana-Champaign
Generalized sums and products
- 4:30 - 4:55 p.m. **Jianping Pan**, University of California, Davis
Tableaux and polynomial expansions
- 5:00 - 5:30 p.m. **Daniel G. Glasscock**, University of Massachusetts, Lowell
Sums and intersections of multiplicatively invariant sets in the integers
- 5:30 - 6:00 p.m. **Break**
- 6:00 - 6:25 p.m. **James Sellers**, University of Minnesota Duluth
Sequentially congruent partitions and partitions into squares
- 6:30 - 6:55 p.m. **Robert Dougherty-Bliss**, Rutgers University - New Brunswick
More irrationally good approximations from Beukers integrals
- 7:00 - 7:30 p.m. **Russell Jay Hendel**, Towson University
Sums of squares: Methods for proving identity families
- 7:30 - 7:55 p.m. **Robert Donley**, Queensborough Community College (CUNY)
Vandermonde convolution for ranked posets
- 8:00 - 8:25 p.m. **Olivine Silier**, California Institute of Technology
Structural Szemerédi-Trotter theorem for lattices.

CANT 2021 Zoom Program

Wednesday, May 26, 2021

- 7:30 - 7:55 a.m. **Bhuvanesh Rao Patil**, IIT Roorkee, India
Multiplicative patterns in syndetic sets
- 8:00 - 8:25 a.m. **Sean Eberhard**, University of Cambridge, UK
The apparent structure of dense Sidon sets
- 8:30 - 8:55 a.m. **Carlo Sanna**, Politecnico di Torino, Italy
Additive bases and Niven numbers
- 9:00 - 9:25 a.m. **Oliver Roche-Newton**, Johann Radon (RICAM), Austria
The Elekes-Szabo Theorem and sum-product estimates for sparse graphs
- 9:30 - 9:55 a.m. **Harald Andres Helfgott**, Universität Göttingen, Germany
Expansion, divisibility and parity
- 10:00 - 10:30 a.m. **Break**
- 10:30 - 10:55 a.m. **Pooja Punyani**, Indian Institute of Technology, New Delhi, India.
On characterizing small changes in the Frobenius number
- 11:00 - 11:25 p.m. **Leonid Fel**, Technion - Israel Institute of Technology, Israel
Genera of numerical semigroups and polynomial identities for degrees of syzygies
- 11:30 - 11:55 a.m. **Sándor Kiss**, Budapest University of Technology and Economics, Hungary
Generalized Sidon sets of perfect powers
- 12:00 - 12:30 p.m. **Neil Hindman**, Howard University
Strongly image partition regular matrices
- 12:30 - 1:00 p.m. **Break**
- 1:00 - 1:25 p.m. **Lajos Hajdu**, University of Debrecen, Hungary
Multiplicative (in)decomposability of polynomial sequences
- 1:30 - 1:55 p.m. **Zachary Chase**, University of Oxford, UK
A random analogue of Gilbreath's conjecture

CANT 2021 Zoom Program

Wednesday, May 26, 2021

- 2:00 - 2:25 p.m. **Konstantin Olmezov**, Moscow Institute of Physics and Technology, Russia
On additive energy of convex sets with higher concavity
- 2:30 - 2:55 a.m. **Paul Pollack**, University of Georgia
Multiplicative orders mod p
- 3:00 - 3:25 p.m. **Break**
- 3:30 - 3:55 p.m. **Alex Rice**, Millsaps College
Two constructions related to well-known distance problems
- 4:00 - 4:25 p.m. **Sinai Robins**, University of Sao Paolo, Brazil
The null set of a of a polytope, and the Pompeiu property for polytopes
- 4:30 - 4:55 p.m. **Richard Magner**, Boston University
Classifying partition regular polynomials in a nonlinear family
- 5:00 - 5:30 p.m. **Elżbieta Boidyriew, John Haviland, Phúc Lâm, John Lentfer, Steven J. Miller, Fernando Trejos Suárez**, Williams College
Completeness of generalized Fibonacci sequences
- 5:30 - 6:00 p.m. **Break**
- 6:00 - 6:25 p.m. **Geertrui Van de Voorde**, University of Canterbury, New Zealand
On the product of elements with prescribed trace
- 6:30 - 6:55 p.m. **Arthur Paul Pedersen**, City College (CUNY)
The Hahn-Hölder
- 7:00 - 7:30 p.m. **Brian McDonald**, University of Rochester
Cycles of arbitrary length in distance graphs on \mathbb{F}_q^d
- 7:30 - 7:55 p.m. **Noah Lebowitz-Lockard**,
On factorizations into distinct parts

CANT 2021 Zoom Program

Thursday, May 27, 2021

- 8:00 - 8:25 a.m. **Jinhui Fang**, Nanjing University of Information Science and Technology, China
On generalized perfect difference sumset
- 8:30 - 8:55 a.m. **Norbert Hegyvári**, Eötvös University and Rényi Institute, Hungary
Communication complexity, coding, and combinatorial number theory
- 9:00 - 9:25 a.m. **Qinghai Zhong**, Universität Graz, Austria
On product-one sequences over subsets of groups
- 9:30 - 9:55 a.m. **Oriol Serra** Universitat Politècnica de Catalunya, Barcelona
Triangulations and the Brunn–Minkowski inequality
- 10:00 - 10:30 a.m. **Break**
- 10:30 - 10:55 a.m. **Yifan Jing**, University of Illinois at Urbana-Champaign
Minimal and nearly minimal measure expansions in connected locally compact groups
- 11:00 - 11:25 p.m. **Scott Chapman**, Sam Houston Stqte University
When Is a Puiseux monoid atomic?
- 11:30 - 11:55 a.m. **Paul Baginski**, Fairfield University
Abundant numbers, semigroup ideals, and nonunique factorization
- 12:00 - 12:30 p.m. **Jozsef Balogh**, University of Illinois at Urbana-Champaign
On the lower bound on Folkman cube
- 12:30 - 1:00 p.m. **Break**
- 1:00 - 1:25 p.m. **Fatma Karaoglu**, Tekirdag Namik Kemal University, Turkey
On the number of lines of a smooth cubic surface
- 1:30 - 1:55 p.m. **Mehdi Makhul**, Johann Radon (RICAM), Austria
The Elekes-Szabó problem and the uniformity conjecture

CANT 2021 Zoom Program

Thursday, May 27, 2021

- 2:00 - 2:25 p.m. **Christian Elsholtz**, Graz University of Technology, Austria
Fermat's Last Theorem Implies Euclid's infinitude of primes
- 2:30 - 2:55 a.m. **David Gryniewicz**, University of Memphis
Characterizing infinite subsets of lattice points having finite-like behavior.
- 3:00 - 3:25 p.m. **Break**
- 3:30 - 3:55 p.m. **Thái Hoàng Lê**, University of Mississippi
Bohr sets in sumsets
- 4:00 - 4:25 p.m. **Karyn McLellan**, Mount Saint Vincent University, Canada
A problem on generating sets containing Fibonacci numbers
- 4:30 - 4:55 p.m. **Max Wenqiang Xu**, Stanford University
Discrepancy in modular arithmetic progressions
- 5:00 - 5:30 p.m. **Anqi Li**, MIT
Local properties of difference sets
- 5:30 - 6:00 p.m. **Break**
- 6:00 - 6:25 p.m. **Ryan Ronan**, Baruch College (CUNY)
An asymptotic for the growth of Markoff-Hurwitz tuples
- 6:30 - 6:55 p.m. **Esther Banaian**, University of Minnesota
A generalization of Markov numbers
- 7:00 - 7:30 p.m. **Gabriela Araujo-Pardo**, Universidad Nacional Autónoma de México, México
Complete colorings on circulant graphs and digraphs
- 7:30 - 7:55 p.m. **S. Kaylee Weatherspoon**, University of South Carolina
A description of maximal non-biconnected unit distance graphs in the plane

CANT 2021 Zoom Program

Friday, May 28, 2021

- 8:00 - 8:25 a.m. **Paolo Leonetti**, Università Bocconi, Milano, Italy
On Poissonian pair correlation sequences with few gaps
- 8:30 - 8:55 a.m. **Emma Bailey**, University of Bristol, UK
Generalized moments and large deviations of random matrix polynomials and L -functions
- 9:00 - 9:25 a.m. **Louis-Pierre Arguin**, Baruch College (CUNY)
The Fyodorov-Hiary-Keating conjecture
- 9:30 - 9:55 a.m. **Shalom Eliahou**, Université du Littoral Côte d'Opale, France
Optimal bounds on the growth of iterated sumsets in abelian semigroups
- 10:00 - 10:30 a.m. **Karamah Muneer**, Palestine Polytechnic University, Palestine
Generalizations of B.Berggren and Price matrices
- 10:30 - 10:55 a.m. **Valérie Berthé**, Université de Paris, CNRS, France
Dynamics of Ostrowski's numeration: Limit laws and Hausdorff dimensions
- 11:00 - 11:25 p.m. **Tom Slattery**, University of Warwick, UK
On Fibonacci partitions
- 11:30 - 11:55 a.m. **Ayesha Hussain**, University of Bristol, UK
Distributions of Dirichlet character sums
- 12:00 - 12:30 p.m. **George Andrews**, Pennsylvania State University
Schmidt Type partitions and modular forms
- 12:30 - 1:00 p.m. **Break**
- 1:00 - 1:25 p.m. **Maciej Ulas**, Jagiellonian University, Krakow, Poland
Equal values of certain partition functions via Diophantine equations
- 1:30 - 1:55 p.m. **Akshat Mudgal**, University of Bristol, UK
Additive energies on spheres

CANT 2021 Zoom Program

Friday, May 28, 2021

- 2:00 - 2:25 p.m. **Krystian Gajdzica**, Jagiellonian University, Krakow, Poland
Arithmetic properties of the restricted partition function $p_A(n, k)$
- 2:30 - 2:55 a.m. **Alex Iosevich**, University of Rochester
Uniform distribution and incidence theorems
- 3:00 - 3:25 p.m. **Break**
- 3:30 - 3:55 p.m. **Joshua Cooper**, University of South Carolina
Recurrence ranks and moment sequences
- 4:00 - 4:25 p.m. **Danielle Cox**, Mount Saint Vincent University, Canada
A sequence arising from diffusion in graphs
- 4:30 - 4:55 p.m. **Mizan R. Khan**, Eastern Connecticut State University
To count clean triangles we count on *imph*
- 5:00 - 5:30 p.m. **Amanda Francis**, Mathematical Reviews, AMS
Sequences of integers related to resistance distance in structured graphs
- 5:30 - 6:00 p.m. **Break**
- 6:00 - 6:25 p.m. **Shane Chern**, Pennsylvania State University
Euclidean billiard partitions
- 6:30 - 6:55 p.m. **Chi Hoi Yip**, University of British Columbia, Canada
Gauss sums and the maximum cliques in generalized Paley graphs of square order
- 7:00 - 7:30 p.m. **Brad Isaacson**, New York City College of Technology (CUNY)
Three imprimitive character sums
- 7:30 - 7:55 p.m. **Yaghoub Rahimi**, Georgia Institute of Technology
Endpoint ℓ^p improving estimates for prime averages