

CANT 2022: Zoom Conference

Twentieth Annual Workshop on
Combinatorial and Additive Number Theory
CUNY Graduate Center
May 24 - 27, 2022

Speakers

- (1) **Emma Bailey**, CUNY Graduate Center
Email: ebailey@gc.cuny.edu
Title: Large deviations of Selberg's central limit theorem
- (2) **Benjamin Baily**, Williams College
Email: bmb2@williams.edu
Title: Large sets are sumsets
- (3) **Gautami Bhowmik**, Université de Lille, France
Email: gautami.bhowmik@univ-lille.fr
Title: Siegel zeros under Goldbach conjectures
- (4) **Jörg Brüdern**, Universität Göttingen, Germany
Email: joerg.bruedern@mathematik.uni-goettingen.de
Title: Bracketed ternary additive problems
- (5) **Yin Choi Cheng**, CUNY Graduate Center
Email: ycheng@gradcenter.cuny.edu
Title: Order type of shifts of morphic words
- (6) **Jin-Hui Fang**, Nanjing University of Information Science and Technology
Email: fangjinhui1114@163.com
Title: Representation functions avoiding integers with density zero
- (7) **Leonid Fel**, Technion – Israel Institute of Technology, Israel
Email: lfel@cv.technion.ac.il
Title: Commutative monoid of self-dual symmetric polynomials
- (8) **Henry Fleischmann**, University of Michigan, and
Ethan Pesikoff, Yale University
Email: henryfl@umich.edu and ethan.pesikoff@yale.edu
Title: Angle variants of the Erdős distinct distance problem

- (9) **Mikhail Gabdullin**, Steklov Mathematical Institute, Moscow, Russia
Email: gabdullin.mikhail@yandex.ru
Title: A conjecture of Cilleruelo and Cordoba and divisors in a short interval

- (10) **Krystian Gajdzica**, Jagiellonian University, Kraków, Poland
Email: krystian.gajdzica@im.uj.edu.pl
Title: Some inequalities for the multicolor restricted partition function $p_{\mathcal{A}}(n, k)$

- (11) **Filip Gawron**, Jagiellonian University, Poland
Email: filipux.gawron@student.uj.edu.pl
Title: Sign behavior of sums of weighted numbers of partitions

- (12) **Rachel Greenfeld**, UCLA
Email: greenfeld@ucla.edu
Title: Translational tilings

- (13) **Li Guo**, Rutgers University - Newark
Email: liguo@rutgers.edu
Title: Renormalization of quasisymmetric functions

- (14) **Shruti Hegde**, Ramakrishna Mission Vivekananda Educational and Research Institute, India
Email: shrutihg2112@gmail.com
Title: Weighted zero-sum constants and inverse results

- (15) **Norbert Hegyvari**, Eötvös Loránd University and Alfréd Rényi Institute of Mathematics, Hungary
Email: hegyvari@renyi.hu
Title: Boolean functions defined on pseudo-recursive sequences

- (16) **Russell Jay Hendel**, Towson University
Email: RHendel@Towson.Edu
Title: A system of four simultaneous recursions

- (17) **Brad Isaacson**, New York City College of Technology (CUNY)
Email: bisaacson@citytech.cuny.edu
Title: On a polynomial reciprocity theorem of Carlitz

- (18) **Faye Jackson**, University of Michigan, and
Luke Reifenberg, University of Notre Dame
Email: alephnil@umich.edu and lreifenb@nd.edu
Title: The Generalized Bergman game

- (19) **Renling Jin**, College of Charleston
Email: jinr@cofc.edu
Title: Hyper-hyper-hyper-integers and a simple proof of Szemerédi's theorem
- (20) **Gergely Kiss**, Alfréd Rényi Institute of Mathematics, Hungary
Email: kigergo57@gmail.com
Title: Fuglede's conjecture on the direct product of finite abelian groups
- (21) **Jakub Konieczny**, Claude Bernard University Lyon 1, France
Email: jakub.konieczny@gmail.com
Title: Automatic semigroups
- (22) **Noah Kravitz**, Princeton University
Email: nkravitz@princeton.edu
Title: Zero patterns of derivatives of polynomials
- (23) **Thái Hoàng Lê**, University of Mississippi
Email: leth@olemiss.edu
Title: Bohr sets in sumsets in countable abelian groups
- (24) **Paolo Leonetti**, Università "Luigi Bocconi", Milano, Italy
Email: leonettipaolo@gmail.com
Title: The G.C.D. of n and the n th Fibonacci number
- (25) **Jared Duker Lichtman**, University of Oxford
Email: jared.lichtman@maths.ox.ac.uk
Title: A proof of the Erdős primitive set conjecture
- (26) **Ariane Masuda**, New York City College of Technology, CUNY
Email: amasuda@citytech.cuny.edu
Title: Rédei permutations with the same cycle structure
- (27) **Piotr Miska**, Jagiellonian University, Kraków, Poland
Email: piotr.miska@uj.edu.pl
Title: On (non-)realizability of Stirling numbers
- (28) **Mel Nathanson**, Lehman College (CUNY)
Email: melvyn.nathanson@lehman.cuny.edu
Title: Multiplicity interpolation of polynomials
- (29) **Péter Pál Pach**, TU Budapest
Email: p.p.pach@gmail.com
Title: Colouring the smooth numbers

- (30) **Huy Pham**, Stanford University
Email: huypham@stanford.edu
Title: Homogeneous structures in subset sums and applications

- (31) **Paul Pollack**, University of Georgia
Email: pollack@uga.edu
Title: Weak uniform distribution of certain arithmetic functions

- (32) **Sean Prendiville**, Lancaster University, UK
Email: s.prendiville@lancaster.ac.uk
Title: Adapting the circle method for colourings

- (33) **Alex Rice**, Millsaps College
Email: riceaj@millsaps.edu
Title: New results in classical and arithmetic Ramsey theory

- (34) **Sinai Robins**, University of Sao Paulo, Brazil
Email: srobins@ime.usp.br
Title: The covariogram and an extension of Siegel's formula

- (35) **Anurag Sahay**, University of Rochester
Email: anuragsahay@rochester.edu
Title: Moments of the Hurwitz zeta function with rational shifts

- (36) **Carlo Sanna**, Politecnico di Torino, Italy
Email: carlo.sanna@polito.it
Title: Membership in random ratio sets

- (37) **James Sellers**, University of Minnesota Duluth
Email: jsellers@d.umn.edu
Title: Relating the crank of a partition and smallest missing parts

- (38) **Steven Senger**, Missouri State University
Email: stevensenger@gmail.com
Title: Distinct dot products, convexity, and $AA + 1$

- (39) **Bartosz Sobolewski**, Jagiellonian University, Kraków, Poland
Email: bartosz.sobolewski@uj.edu.pl
Title: Monochromatic arithmetic progressions in binary words associated with pattern sequences

- (40) **Gábor Somlai**, Eötvös Loránd University and Alfréd Rényi Institute of Mathematics, Hungary
Email: zsomlai@gmail.com
Title: Fuglede's conjecture, the one dimensional case

- (41) **Johann Thiel**, New York City College of Technology, CUNY
Email: jthiel@citytech.cuny.edu
Title: Solving the membership problem for certain subgroups of $SL_2(\mathbb{Z})$
- (42) **Ognian Trifonov**, University of South Carolina
Email: trifonov@math.sc.edu
Title: Lattice points close to ovals, arcs, and helices
- (43) **Tim Trudgian**, UNSW Canberra at the Australian Defence Force Academy
Email: t.trudgian@adfa.edu.au
Title: Dont believe the Fake Mu's!
- (44) **Maciej Ulas**, Jagiellonian University, Kraków, Poland
Email: maciej.ulas@gmail.com
Title: Solutions of certain meta-Fibonacci recurrences
- (45) **Ethan Patrick White**, University of British Columbia
Email: epwhite@math.ubc.ca
Title: Erdős' minimum overlap problem

- (46) **Trevor D. Wooley**, Purdue University
Email: twooley@purdue.edu
Title: Shifted analogues of the divisor function
- (47) **Max Wenqiang Xu**, Stanford University
Email: maxxu@stanford.edu
Title: On a Turán Conjecture and random multiplicative functions
- (48) **Ajmain Yamin**, CUNY Graduate Center
Email: ayamin@gradcenter.cuny.edu
Title: The exceptional automorphism of S_6 explained with colored maps
- (49) **Catherine Yan**, Texas A&M University
Email: huafei-yan@tamu.edu
Title: Multivariate Gončarov Polynomials and Integer Sequences
- (50) **Daodao Yang**, Graz University of Technology, Austria
Email: yang@tugraz.at
Title: Extreme values of derivatives of the Riemann zeta function, log-type GCD sums, and spectral norms
- (51) **Wijit Yangjit**, University of Michigan
Email: yangjit@umich.edu
Title: On the Montgomery–Vaughan weighted generalization of Hilbert’s inequality
- (52) **Chi Hoi Yip**, University of British Columbia
Email: kyleyip@math.ubc.ca
Title: Asymptotics for the number of directions determined by $[n] \times [n]$ in \mathbb{F}_p^2
- (53) **Qinghai Zhong**, University of Graz, Austria,
Email: qinghai.zhong@uni-graz.at
Title: On monoids of weighted zero-sum sequences