

CANT 2022: Zoom Conference

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

Speakers (as of May 10, 2022)

- (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, and
Henry Fleischmann, University of Michigan
Email: bmb2@williams.edu and henryfl@umich.edu
Title: Large sets are sumsets
- (3) **Gautami Bhowmik**, Université de Lille
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
Abstract: The ternary additive problems of Waring's type (that is, sums of three potentially unlike powers) have attracted many workers in the additive theory of numbers. In this talk, we discuss several variants that involve brackets (that is, the integer part of certain monomials).
- (5) **Jin-Hui Fang**, Nanjing University of Information Science and Technology
Email: fangjinhui1114@163.com
Title: Representation functions avoiding integers with density zero
- (6) **Leonid Fel**, Technion – Israel Institute of Technology, Israel
Email: lfel@cv.technion.ac.il
Title: Commutative monoid of self-dual symmetric polynomials
- (7) **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
- (8) **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

- (9) **Krystian Gajdzica**, Jagiellonian University, Kraków, Poland
Email: krystian.gajdzica@im.uj.edu.pl
Title: Some inequalities for the multicolor restricted partition function $p_{\mathcal{A}}(n, k)$
- (10) **Heidi Goodson**, Brooklyn College (CUNY)
Email: Heidi.Goodson@brooklyn.cuny.edu
Title: Sato-Tate groups in dimension greater than 3
- (11) **Rachel Greenfeld**, UCLA
Email: greenfeld@ucla.edu
Title: Translational tilings
- (12) **Li Guo**, Rutgers University - Newark
Email: liguo@rutgers.edu
Title: Renormalization of quasisymmetric functions
- (13) **Shruti Hegde**, Ramakrishna Mission Vivekananda Educational and Research Institute, India
Email: shrutihg2112@gmail.com
Title: Weighted zero-sum constants and inverse results
- (14) **Norbert Hegyvari**, Eötvös Loránd University and Alfréd Rényi Institute of Mathematics, Hungary
Email: hegyvari@renyi.hu
Title: Boolean functions defined on pseudo-recursive sequences
- (15) **Russell Jay Hendel**, Towson University
Email: RHendel@Towson.Edu
Title: A system of four simultaneous recursions
- (16) **Robert Hough**, Stony Brook University
Email: robert.hough@stonybrook.edu
Title: Character ratios and mixing on the symmetric and orthogonal groups
- (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) **Thai Hoang Le**, University of Mississippi
Email: leth@olemiss.edu
Title: tba
- (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) **Huy Pham**, Stanford University,
Email: huypham@stanford.edu
Title: Homogeneous structures in subset sums and applications
- (30) **Sean Prendiville**, Lancaster University, UK
Email: s.prendiville@lancaster.ac.uk

Title: Adapting the circle method for colourings

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

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

- (33) **John R. Schmitt**, Middlebury College and University of Graz, Austria
Email: jschmitt@middlebury.edu
Title: Higher degree Davenport constants over finite commutative rings

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

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

- (36) **Junxuan Shen**, California Institute of Technology
Email: jshen@caltech.edu
Title: The structural incidence problem for cartesian products

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

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

- (39) **Johann Thiel**, New York City College of Technology, CUNY
Email: jthiel@citytech.cuny.edu
Title: Solving the membership problem for certain subgroups of $SL_2(\mathbb{Z})$

- (40) **Ognian Trifonov**, University of South Carolina
Email: trifonov@math.sc.edu
Title: Lattice points close to ovals, arcs, and helices

- (41) **Maciej Ulas**, Jagiellonian University, Kraków, Poland
Email: maciej.ulas@gmail.com
Title: Solutions of certain meta-Fibonacci recurrences

- (42) **Ethan Patrick White**, University of British Columbia
Email: epwhite@math.ubc.ca
Title: Erdős' minimum overlap problem
- (43) **Trevor D. Wooley**, Purdue University
Email: twooley@purdue.edu
Title: Shifted analogues of the divisor function
- (44) **Max Wenqiang Xu**, Stanford University
Email: maxxu@stanford.edu
Title: On a Turán Conjecture and random multiplicative functions
- (45) **Catherine Yan**, Texas A&M University
Email: huafei-yan@tamu.edu
Title: Multivariate Gončarov Polynomials and Integer Sequences
- (46) **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
- (47) **Wijit Yangjit**, University of Michigan
Email: yangjit@umich.edu
Title: On the Montgomery–Vaughan weighted generalization of Hilbert's inequality
- (48) **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
- (49) **Qinghai Zhong**, University of Graz, Austria,
Email: qinghai.zhong@uni-graz.at
Title: On monoids of weighted zero-sum sequences