המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום שלישי, 12 בדצמבר, 2017

בשעה *14:15 – 17:00*

ב*Math -101*

ההרצאה

תב"ה

תינתן על-ידי

meeting Math-Physics

תקציר: break 14:15-14:30-coffee
Entova Inna 14:30-14:40
categories tensor and Superalgebras Title:
some present and superalgebras, Lie are what describe briefly will I Abstract:
years. few last the in studied been have which representations their on questions
Berend Daniel 14:45-14:55
Probability. Applied Title:
area. this in problem a of example an present will We Abstract:
Abraham Ben Shelomo 15:00-15:10
overflight an – tilings Aperiodic
Glasner Yair 15:15-15:25
finite in orbits periodic counting and theorem Kesten probabilistic A Title:
graphs.

Abstract: I will describe the notion of Invariant random subgroups and how we used it to give precise estimates on the asymptotic number of closed (non-backtracking circuits in finite graphs.

15:30-15:40 Tom Meyerovitch

Title: Gibbs measures and Markov Random Fields

Abstract: From an abstract mathematical point of view, a Markov Random Field is a random function on the vertices of some (finite or countable) graph, with a certain conditional independence property. Every Gibbs measure (for a local interaction) is a Markov random Field. An old theorem due to Hammersley and Clffiord establishes the converse, under some extra assumptions. I will present these notions and state some (slightly more recent results and questions.

Coffee break

16:00-16:10 Doron Cohen

Title: Stochastic Processes and Quantum Chaos

Abstract: Our recent study considers the dynamics of stochastic and quantum models, in particular ring geometry: (a) with classical particles that perform random walk in disordered environment; (b) with quantum Bose particles whose dynamics is coherent. One theme that arises in both cases is the Anderson-type localization of the eigenstates.

16:15-16:25 Ilan Hirshberg

Title: C*-dynamical systems and crossed products.

Abstract: I'll briefly say a few words on what the words above mean, loosely and what kinds of problems I tend to look at.

16:30-16:40 Victor Vinnikov Noncommutative Function Theory

One of my main interests in recent years have been in developing a theory of functions of several noncommuting variables. It turns out, the following pioneering ideas of Joseph L. Taylor in the early 1970s, that such functions can be naturally viewed as functions on tuples of square matrices of all sizes that satisfy certain compatibility conditions as we vary the size of matrices. Noncommutative functions are related, among other things, to the theory of operator spaces (including complete positivity and matrix convexity) and to free probability. Some other topics that I am interested in, and that I can discuss in case of interest, are function theory on the unit ball and on the polydisc in C^n and related operator theory, line and vector bundles on compact Riemann surface, especially theta functions and Cauchy kernels, determinantal representations of algebraic varieties and various topics on convexity in real algebraic geometry related to hyperbolic polynomials.

16:45-16:55 David Eichler

networks in routing conflict zero Vortex-based,
2D in conflict traffic reducing for suggested is approach novel A Abstract:
zero as defined are conflicts primary without Intersections networks. spatial
maximal of classfiication complete provably A designs. (ZTC) conflict traffic
three-way 3 and four-way 9 are there that shown is It presented. is designs ZTC
reversal arrow and rotation, mirror, within to designs, intersection ZTC maximal
intersections most or all where networks design to used are Vortices symmetry.
intersecting unrestricted to relative distance, travel average in Increases ZTC. are
conflict. traffic reducing of cost worthwhile a represent and modest, are flow,

אנא שימו לב לשינוי בשעה!