

המחלקה למתמטיקה, בן-גוריון

Noriko and scholarship Gauchman
award fellowships Sakurai

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**The Department of Mathematics and the Center of Advanced Studies in Mathematics
announce a special meeting to mark the award of
the Gauchman excellence scholarship and the Noriko Sakurai fellowship for the year 2018
Tuesday, May 8 at 14:00 at the Deichmann building for Mathematics (58), Seminar room -101**

Program:

14:00 Gathering, light refreshments

14:20 **Opening remarks:**

Prof. Miriam Cohen,

Director of the Center of Advanced Studies in Mathematics

Prof. Daniel Sternheimer,

Rikkyo (Japan) and Bourgogne (France) Universities

Prof. Uri Abraham, Sharing his personal memories from Hillel Gauchman

Ms. Julia Gauchman, on behalf of Gauchman family

14:35 **Honorary lecture:**

Prof. Simone Gutt, Université libre de Bruxelles

Title: When complex and symplectic geometries (almost) meet

Abstract: Symplectic geometry has its origins in the Hamiltonian formulation of classical mechanics. Complex geometry is on the crossroad of algebraic and differential geometry. In differential geometry it yields the notion of almost complex structures. Kähler geometry is at the intersection of symplectic and complex geometry. I shall give examples and properties of those three geometries and show examples of symplectic manifolds which are not Kähler. All symplectic manifolds admit almost complex structures. These allow to define pseudoholomorphic curves. Following seminal ideas of Gromov and Floer from the 1980s, several of the most powerful tools in symplectic topology revolve around invariants counting pseudoholomorphic curves. I shall end my talk by exhibiting geometrical structures associated to (non complex) almost complex structures on a symplectic manifold.

15:25 **Words by Prof. Uri Onn, supervisor of Mr. Shai Shechter, recipient of the Hillel Gauchman fellowship**

15:27 **The 2018 Hillel Gauchman excellence scholarship ceremony and a lecture**

by **Mr. Shai Shechter**, recipient of the Hillel Gauchman fellowship

Title: On the representation growth of groups.

Abstract: In the study of representation growth, one attempts to obtain information about a given group by asking the question "in how many ways can the group act on a vector space of given dimension n ?" One is especially interested in the way the answer to this question varies as n tends to infinity. In this talk, we present the basic notions pertaining to the study of representation growth, focusing on the case of arithmetic groups, where the study has proved especially fruitful. Following this, we introduce the fundamental tool of research in the field, which is the representation zeta function of the group, and consider several examples and open questions regarding this function.

15:37 **Prof. Yair Glasner, Introducing the recipient of the Noriko Sakurai prize**

15:40 **The 2018 Noriko Sakurai fellowship award ceremony and a lecture**

by *Dr. Waltraud Lederle*, recipient of the Noriko Sakurai prize

Title: Almost Automorphism Groups of Trees

Abstract: Cutting and pasting trees leads to very interesting examples of groups, defined by Y. A. Neretin in the 90s. There is an interesting connection to topological full groups associated to one-sided shifts, which allows to find countably many completions of the famous group usually called Thompson's V.

You are cordially invited

Professor Miriam Cohen and Professor Ilan Hirshberg

2018, 16:00—14:00, 8 ימים :**Time**

101- Math :**Location**

<https://www.math.bgu.ac.il/research/events/sakurai18> :**Web**