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אוניברסיטת בן-גוריון בנגב  
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**פרופ' מרים כהן**

ראש המרכז ללימודים מתקדמים במתמטיקה  
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**The Department of Mathematics and the Center of Advanced Studies in  
Mathematics announce a special meeting to mark the  
2012 award of the Noriko Sakurai fellowship**

*Sunday, May 13, 2012, at 10:00  
at the Deichman building for Mathematics (58), Seminar room -101*

**Program:**

Gathering, light refreshments

**Opening remarks:** Prof. Miriam Cohen, Director of the Center of Advanced Studies in  
Mathematics

Prof. Ronen Peretz, Chair, Department of Mathematics

Prof. Daniel Sternheimer, Rikkyo (Tokyo, Japan) and Bourgogne (France)  
Universities

**Honorary lecture:** Prof. Yoshiaki Maeda, Department of Mathematics, Keio University, Japan.

**Title:** Spectral analysis and deformation quantization

**Abstract:** We discuss spectral analysis from the point of view of deformation quantization. Deformation quantization, as originally proposed by Flato, Sternheimer, and their collaborators, is an approach to quantization of classical mechanics based on noncommutative deformations of Poisson algebras of classical observables (functions on a Poisson manifold). It does not involve the usual quantization constructions of Hilbert spaces and self-adjoint operators corresponding to these observables. Our specific approach constructs families of deformation quantizations of a given Poisson algebra. We study common properties for deformation quantizations ("star products") within an equivalence class. In particular, we investigate properties of star exponential functions of quadratic functions, and construct the important vacuum state.

**Lecture:** Dr. Ahuva Shkop, 2012 recipient of the Noriko Sakurai fellowship

**Title:** Conjectures by Zilber, Schanuel, and Shapiro as well as some Actual Theorems

**Abstract:** In this talk, we will give an overview of the axioms of Zilber's pseudoexponential fields and discuss a number of results.