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## Professor Miriam Cohen

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אוניברסיטת בן-גוריון בנגב ת.ד. 653 באר-שבע 84105

פרופ' מרים כהן

ראש המרכז ללימודים מתקדמים במתמטיקה המחלקה למתמטיקה

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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 Noriko Sakurai fellowship and the Excellence day for the year 2016

Tuesday, June 7 at 14:00 at the Deichmann building for Mathematics (58), Seminar room -101

## **Program:**

**14:00** Gathering, light refreshments

## 14:25 Opening remarks:

Prof. Miriam Cohen,

Director of the Center of Advanced Studies in Mathematics

Prof. Daniel Sternheimer,

Rikkyo (Japan) and Bourgogne (France) Universities

## 14:35 Honorary lecture:

**Prof. Daniel Sternheimer,** Rikkyo University and Universite de Bourgogne **Title**: The reasonable effectiveness of mathematical deformation theory in physics **Abstract:** In 1960 Wigner marveled about "the unreasonable effectiveness of mathematics in the natural sciences." In 1963/64 appeared index theorems for pseudodifferential operators and Gerstenhaber's theory of deformations of algebras. In the mid-seventies the two "converged" to explain quantum mechanics as a deformation of classical mechanics, what is now called "deformation quantization". Quantum groups and noncommutative geometry can be considered as avatars of that framework. I shall explain these notions in general terms and describe some results, ending with a suggestion to use the framework to put on "non-clay feet" the "colossal" standard model.

- **15:15** The 2016 Noriko Sakurai fellowship award ceremony and a lecture by *Dr. Chaya Keller*, recipient of the Noriko Sakurai fellowship Title: "Improved bounds on the Hadwiger-Debrunner numbers"
- 15:30 The 2016 Friedman prize award for a doctoral work ceremony and a lecture by *Mr. Alexandre Rok*, recipient of the Friedman prize

  Title: "On an extension of the notion of a median in higher dimensions"
- 15:40 Excellence awards for undergraduate students:

**Dean's prize for Excellency**: Mr. Yotam Dikstein

**Certificate of Recognition:** Mr. Tom Hess, Mr. Jonathan Volij