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## K-Theory, Quadratic Forms and Number Theory Seminar

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**Professor Kazufumi Kimoto (University of Ryukyus / IHES)**

will speak on

**Arithmetic aspects of the non-commutative harmonic oscillator**

Wed 15th October 2008 at 3:00PM

Location: Mathematical Sciences Seminar Room

The eigenvalues of the ordinary (quantum) harmonic oscillator  $H = -D^2/2 + x^2/2$  ( $D = d/dx$ ) is given by  $\text{Spec}(H) = 1/2, 3/2, 5/2, \dots$ , so that its spectral zeta function  $\sum_{\lambda \in \text{Spec}(H)} \lambda^{-s}$  is essentially given by the Riemann zeta function of the commutative harmonic oscillator, which can be regarded as a parametric deformation and/or higher dimensional generalization.

This talk is part of the **K-Theory, Quadratic Forms and Number Theory** series. For more, see <https://maths.ucd.ie/seminars>