

**220 Anniversary of W.R. Hamilton and 20th Anniversary of the Hamilton
Mathematics Institute TCD Conference**

Thursday, 13 March 3.30-4.30 pm

Talk by: Andrei Okounkov (Columbia University, New York, USA)

Title: The Einstein spectrum

Abstract:

This will be a nontechnical talk about our work with David Kazhdan on the spectrum of the Laplace and Hecke operators in the span of Eisenstein series. This very classical problem in the spectral theory of automorphic forms goes back to at least Langlands, who also introduced the analytic techniques that allow to find the spectrum in principle. To replace an in-principle answer by a concrete answer, we found it very useful to have a certain geometric interpretation of the multivariate contour integrals in Langlands' setup. My goal in this talk will be to explain this geometric interpretation.