Annual General Meeting

15 November 2013

3.00 – 6.00pm

Jeffrey Hall, Institute of Education

(20 Bedford Way, London, WC1H 0AL. Nearest tube: Russell Square)

Programme

Annual General Meeting

The meeting will include the presentation of certificates to the LMS Prize-winners in 2013.

Simon Donaldson (Imperial College)

Geometry of Kahler metrics

Abstract: A Kahler metrics is a particular kind of Riemannian metric, adapted to a complex structure on a manifold. The title of the talk is meant to be bear to different interpretations. In one direction, the infinite dimensional space of all Kahler metrics on a given complex manifold has the structure of an infinite-dimensional symmetric space, related to the group of symplectic diffeomorphisms, and there are certain important convex functionals on this space. By arguments related to geometric quantisation these spaces and functionals can be "approximated" by finite dimensional ones (in the case when the complex manifold is algebraic). In another direction, the Kahler condition allows a more detailed undertanding of certain questions in Riemannian geometry involving Gromov-Hausdorff limits. In this lecture we will give an overview of this general area, and say something about recent work with Chen and Song, on an algebro-geometric criterion for the existence of Kahler-Einstein metrics, which involves many of the ideas.

Tea/Coffee

Announcement of Election Results

Graeme Segal (Oxford)

Presidential Address: *Space and spaces*

Abstract: The idea of space is central to the way we think. It is the technology we have evolved for interpreting our experience of the world. But space is presumably a human creation, and even inside mathematics it plays a variety of different roles, some modelling our intuition very closely and some seeming almost magical. I shall point out how the homotopy category in particular breaks away from its own roots. Then I shall describe how quantum theory leads us beyond the well-established notion of a topological space into the realm of noncommutative geometry. One might think that noncommutative spaces are not very space-like, and yet it is noncommutativity that makes the world look as it does to us - as a collection of point-particles.

The meeting will be followed by a reception at De Morgan House, Russell Square, and the Society's Annual Dinner at the Montague Hotel, 15 Montague Street, London, WC1B 5BJ. The cost to attend the dinner will be £53 per person.

Those wishing to attend the dinner should contact Leanne Marshall (AnnualDinner_RSVP@lms.ac.uk) by **Monday 4 November.**

For further details about the AGM, please contact Elizabeth Fisher (lmsmeetings@lms.ac.uk)