



Media release

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London Mathematical Society Prizes 2008

The London Mathematical Society is pleased to announce this year's prize winners:

Pólya Prize – Professor David Preiss, University of Warwick

Fröhlich Prize – Professor Nick Higham, University of Manchester

Senior Berwick Prize – Professor Kevin Buzzard, Imperial College, London

Whitehead Prize – Dr Timothy Browning, University of Bristol

Whitehead Prize – Dr Martin Hairer, University of Warwick

Whitehead Prize – Dr Tamás Hausel, University of Oxford

Whitehead Prize – Dr Nina Snaithe, University of Bristol

Professor Brian Davies, President of the LMS, said, "The Society is delighted to be able to honour the outstanding work of these mathematicians. This year's winners have displayed remarkable innovation and creativity of thought. Some have solved problems that have been eluding other mathematicians for many years. Others have produced results which have opened up entirely new fields of mathematics or linked together seemingly unrelated areas to create new and exciting results."

The Council for the LMS announced the prize winners at the Society Meeting held at University College London on 4 July. The awards will be presented at the LMS Annual General Meeting on 21 November.

PÓLYA PRIZE - awarded in recognition of outstanding creativity in, imaginative exposition of, or distinguished contribution to, mathematics within the United Kingdom

The Pólya Prize is awarded to **Professor David Preiss, FRS** of the University of Warwick in recognition of his outstanding contributions to analysis and geometric measure theory.

Professor Preiss starting publishing his original results as a student and as a young mathematician in the 1970s, was able to answer a problem posed by Felix Hausdorff in 1935. In particular, the LMS wanted to

honour Professor Preiss for a result published in 1987 in a paper called 'Geometry of Measures', where he solved the remaining problem in the geometric theoretic structure of sets and measures in Euclidean space.

FRÖHLICH PRIZE - awarded for original and extremely innovative work in any branch of mathematics to a mathematician who has worked for less than 25 years at the post doctoral level (allowing for career breaks)

The Fröhlich prize is awarded to **Professor Nick Higham, FRS** of the University of Manchester, in recognition of his leading contributions to numerical linear algebra and numerical stability analysis.

Higham became well known in the numerical linear algebra community from the start of his career in the 1980s with his work on computing square roots of matrices and estimating matrix condition numbers. In these contributions he set a pattern which he has followed with great success and impact in subsequent years: identifying a fundamental computational problem; analysing the algorithms that have been proposed already for it; finding a key improvement that leads to a better algorithm, often surprising experts who thought the problem was already solved; proving theoretically that the new algorithm works; implementing it in software; and publishing a definitive paper on the subject that is a model of scholarship and clarity.

SENIOR BERWICK PRIZE – awarded in recognition of an outstanding piece of mathematical research actually published by the Society in the previous eight years

The Senior Berwick Prize is awarded to **Professor Kevin Buzzard** of Imperial College, London, for the paper 'Eigenvarieties', published in volume 320 of the LMS Lecture Note Series, L-functions and Galois Representations, 2007.

WHITEHEAD PRIZES – awarded to mathematicians with less than 15 years experience at the post doctoral level (allowing for career breaks)

A Whitehead Prize is awarded to **Dr Timothy Browning** of the University of Bristol for his significant contributions on the interface of analytic number theory and arithmetic geometry concerning the number and distribution of rational and integral solutions to Diophantine equations.

A Whitehead Prize is awarded to **Dr Tamás Hausel** of the University of Oxford for his investigations into hyperkähler geometry which have led him to prove deep results in fields as diverse as the representation theory of quivers, mirror symmetry and Yang-Mills instantons.

A Whitehead Prize is awarded to **Dr Martin Hairer** of the University of Warwick for his contributions to the theory of stochastic differential equations. His work is characterized by the range of problems tackled and the breadth of techniques employed, blending ideas from stochastic analysis, the theory of random dynamical systems, partial differential equations, functional analysis and ergodic theory.

A Whitehead prize is awarded to **Dr Nina Snaith** of the University of Bristol for her work at the interface of random matrix theory and number theory. Her work, in collaboration with colleagues Prof Jon Keating and Prof Brian Conrey, has influenced the work of many mathematicians in her field.

ENDS

Notes for Editors

1. The **London Mathematical Society (LMS)** is the UK's learned society for mathematics. Founded in 1865 for the promotion and extension of mathematical knowledge, the Society is concerned with all branches of mathematics and its applications. It is an independent and self-financing charity, with a membership of over 2600 drawn from all parts of the UK and overseas. Its principal activities are the organisation of meetings and conferences, the publication of periodicals and books, the provision of financial support for mathematical activities, and the contribution to public debates on issues related to mathematics research and education. It works collaboratively with other mathematical bodies worldwide. It is the UK adhering body to the International Mathematical Union and is a member of the Council for the Mathematical Sciences, which also comprises the Institute of Mathematics and its Applications and the Royal Statistical Society.
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