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London Mathematical Society Prizes 2010

The Council of the London Mathematical Society (LMS) is pleased to announce this year's prize winners, with the De Morgan Medal, the Society's most prestigious prize, to be awarded to Professor Bill Morton of the University of Oxford.

Professor Morton's work concerns understanding the flow of liquids and his results have influenced a wide range of fields, from weather forecasting to the design of power stations and from the development of aircraft engines to the growth of scientific computing.

LMS president Professor Angus MacIntyre FRS, said, "A hallmark of Professor Morton's work is the creation of original, elegant mathematics in the service of real-world applications. The London Mathematical Society is proud to honour a mathematician who has changed the way we look at the numerical analysis of partial differential equations through his world-leading research results, his vision and his dynamic leadership qualities."

He added, "All of this year's prize-winners have shown that mathematics in the UK is flourishing and we are delighted to be able to celebrate their achievements."

The winners of this year's LMS prizes are:

De Morgan Medal - Professor Keith William (Bill) Morton of the University of Oxford in recognition of his seminal contributions to the field of numerical analysis of partial differential equations and its applications and for services to his discipline.

Fröhlich Prize - Professor Jonathan Keating FRS, of the University of Bristol in recognition of his seminal work on the modelling of zeta-functions via random matrix theory.

Senior Berwick Prize - Professor Dusa Mcduff FRS, of Barnard College, New York, in recognition of the papers "Symplectic embeddings of 4-dimensional ellipsoids" and "Some 6-dimensional Hamiltonian S1-manifolds." published in volume 2 of the Journal of Topology, 2009.

Whitehead Prize - Dr Harald Helfgott of the University of Bristol for his very varied contributions to number theory, including work on Mobius sums in two variables, integral points on elliptic curves, and in particular for his groundbreaking work on growth and expansion of multiplication of sets in SL_2 (F_p).

Whitehead Prize - Professor Jens Marklof of the University of Bristol for his work on quantum chaos, random matrices and number theory.

Whitehead Prize - Dr Lasse Rempe of the University of Liverpool for his work in complex dynamics, in particular his research on the escaping set for entire functions.

Whitehead Prize - Dr Françoise Tisseur of the University of Manchester for outstanding research achievements in numerical linear algebra, including polynomial eigenvalue and structured matrix problems.

The prize winners were announced at a Society Meeting held at University College London on 2 July 2010. The awards will be presented at the Society's Annual General Meeting on 19 November 2010.

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. www.lms.ac.uk

2.   The LMS is a member of the **Council for the Mathematical Sciences**, which also comprises the Institute of Mathematics and its Applications, the Royal Statistical Society, the Edinburgh Mathematical Society and the Operational Research Society. www.cms.ac.uk

3.   The **De Morgan Medal**, the Society's premier award, is awarded every third year in memory of Professor Augustus De Morgan, the Society's first President. The De Morgan Medal for year X can only be awarded to a mathematician who is normally resident in the United Kingdom on 1 January of year X. The only grounds for the award of the Medal are the candidate's contributions to mathematics.

4.   The **Fröhlich Prize** is awarded in even numbered years in memory of Professor Albrecht Fröhlich (De Morgan Medallist 1992). The Fröhlich Fund for this purpose was based on a generous donation from Mrs Fröhlich, reflecting Professor Fröhlich's great enthusiasm for, and gratitude to, the London Mathematical Society. The Prize is awarded to a mathematician who has fewer than 25 years (full time equivalent) of involvement in mathematics at post-doctoral level, allowing for breaks in continuity, or who in the opinion of the Prizes Committee is at an equivalent stage in their career. The Prize is awarded for original and extremely innovative work in any branch of mathematics.

5.   The **Senior Berwick Prize** is named after Professor W. E. H. Berwick, a former Vice-President of the Society, and is awarded in even-numbered years. The Senior Berwick Prize for year X is awarded in recognition of an outstanding piece of mathematical research actually published by the Society during the eight years ending on 31 December of year X-1; and it may not be awarded to any person who has previously received the De Morgan Medal, Pólya Prize, Senior Whitehead Prize or Naylor Prize.

6.   The **Whitehead Prizes** are in memory of Professor J.H.C. Whitehead and are awarded each year. Whitehead Prizes for year X can only be awarded to mathematicians who, on 1 January of year X, are normally resident in the United Kingdom or members of the Society mainly educated in the United Kingdom, who are not already Fellows of the Royal Society, and have fewer than 15 years (full time equivalent) of involvement in mathematics at post-doctoral level, allowing for breaks in continuity, or who in the opinion of the Prizes Committee are at an equivalent stage in their career. Grounds for the award of a Whitehead Prize may include work in and influence on mathematics, including applied mathematics, mathematical physics, and mathematical aspects of computer science.

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