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国台学术报告 NAOC COLLOQUIUM

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Time: Wednesday 2:30 PM, May 13 **Location: A601 NAOC**

The Magnetic Nature of Our Sun

Dr. Eric R. Priest

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Eric Priest completed his thesis with TG Cowling, a pioneer in early MHD and dynamo theory. He established one of the main solar theory groups in the world at St Andrews, and has written three major books on the subject: *Solar MHD* (1982), *Magnetic Reconnection* (with Terry Forbes, 2000) and *Magnetohydrodynamics of the Sun* (2014). He was elected Fellow of Royal Society of Edinburgh in 1985, of the Norwegian Academy of Sciences and Letters in 1994, of Royal Society in 2002 and of the European Academy of Sciences in 2005. He was president of International Astronomical Union's Commission on Solar Activity in 1988-1991, the

member of UK Research Assessment Exercise Applied Mathematics Panel in 1992, 1995 and 2008, Chair of PPARC's Astronomy Committee and co-Chair of its Science Committee in 1998-2001. He has delivered many named lectures, including the James Arthur Prize Lecture at Harvard and the Lindsay memorial Lecture at the Goddard Space Flight Center. He was awarded the Hale Prize of the American Astronomical Society, only the second time it has been awarded to a British scientist, and the Gold Medal of the Royal Astronomical Society, which is the highest award in the Society in recognition of a lifetime's work (The great names in the long list of recipients since 1824 includes Einstein, Hubble, Poincaré, Hawking, Eddington, Alfven, Chandrasekhar, Ryle, Hale, Lyot, Cowling, and Parker etc.).

Abstract

The lecture will survey many fundamental questions about the nature of the Sun which are still not solved and will ask: what is the progress that has been made in the past 50 years and what are the next steps. These include many topics that are of great importance for astronomy as a whole, namely: the way magnetic fields are generated in the solar interior; the nature of sunspots and magnetic fields in the surface of the Sun; huge flux tubes called prominences; heating of the solar corona to a million degrees; acceleration of the solar wind; and production of solar flares and eruptions.

All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.