Royal Astronomical Society

Professor Andrew Jackson – Gold Medal (G)

Professor Andrew Jackson is a well deserving recipient of the RAS Gold Medal for his leadership and research in the field of geomagnetism. He is prominent for observational studies of the Earth's magnetic field over the last few centuries, and for unravelling aspects of fluid flow in the Earth's core.

Professor Jackson has worked to constrain the evolution of the magnetic field from the time of the earliest direct observation by humankind. Compiling hundreds of thousands of records of magnetic observations, contained in various European libraries, he helped constrain the evolution of the magnetic field at the core surface over the last 400 years.

This model has been made freely available to the research community and is the basis for virtually every study of the historical magnetic field of the last twenty years.

Professor Jackson is an exemplary mathematical geophysicist, making advancements in computational methods and geophysical inverse theory that underpin his research on the geodynamo, while facilitating research in the wider field of geophysics and beyond.

Professor Jackson's recent work applying variational methods to the system of magnetohydrodynamical (MHD) equations has opened up new avenues for data assimilation, discovery of optimal properties of self-excited dynamo action and has advanced the sixty-year old problem of construction of inertia less, inviscid dynamos.

Professor Jackson has supported the community through a number of positions, such as President of the AGU Geomagnetism, Paleomagnetism and Electromagnetism section and has graduated many PhD students and supported Post-doctoral researchers.

It is clear that the breadth, quality and rigour of Professor Jackson's work in the field of geomagnetism makes him a deserving recipient of the Gold Medal of the Royal Astronomical Society.

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