Royal Astronomical Society

RAS Gold Medal (G)
Professor Richard B Horne

Professor Richard B Horne receives the RAS Gold Medal (G) for his outstanding contributions to our understanding of the physics underlying Space Weather, with over 200 research papers, many in high impact journals, that have attracted some 13,500 citations. In particular, he demonstrated that electromagnetic waves in planetary magnetospheres are responsible for accelerating charged particles to relativistic energies, science that underlies the British Antarctic Survey's (BAS) Radiation Belt Model. As Head of the Space Weather and Atmosphere Team at BAS, Professor Horne has shown international leadership in firstly developing space weather science and then leading the European projects SPACECAST (2011-14) and SPACESTORM (2014-2017) to help to protect satellites from the impact of space weather events.

Professor Horne's work has been used to support the UK's National Risk Register of Civil Emergencies: he was instrumental in the inclusion of Space Weather in this Register a decade ago; he was key to the updating of the Register in 2017. He is currently leading the NERC Highlight Topic project RAD-SAT, which brings together academic and space industry scientists and engineers to understand the user requirements for space weather results. Professor Horne acts as an advisor to the Civil Contingencies Unit of the UK Government's Cabinet Office and the SAGE committee. For these contributions to science and to civil society, Professor Richard B Horne is a worthy winner of the RAS Gold Medal (G).

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