

## **Citation for the 2018 RAS James Dungey Lecturer: Professor Jim Wild**

The 2018 RAS James Dungey Lecture is awarded to Professor Jim Wild.

Professor James A. Wild is an enthusiastic and productive researcher in the field of Space Plasma Physics. Having written his doctoral thesis on the electrodynamics of the nightside auroral ionosphere, Jim has moved on to a number of different research areas including the study of the dayside plasma environment of near-Earth space and the coupling between the solar wind, magnetosphere and ionosphere using ground based radar observations by SuperDARN and in situ field and plasma measurements from Earth orbiting satellites, notably the ESA Cluster mission.

The concept of such a space mission was originally mentioned by Dungey in his inaugural Professorial lecture in the early 1960s as the only way in which the process of magnetic reconnection would be demonstrated observationally. How right he was! In the course of his research, Jim has developed expertise in state-of-the-art computer models of the Earth's magnetic field and has applied this to the modelling of Alfvén waves in the Earth's magnetosphere and, via scaling of a terrestrial magnetosphere model, to Saturn.

Jim's current research is focussed on understanding the space environment and the links between the Sun, the Earth and other planets, notably Mars. He studies the physics behind the aurora borealis, the impact of space weather on human technology and the interaction between the Martian atmosphere and the interplanetary environment.

His work on substorm onset timing and tail reconnection rate utilising Cluster and THEMIS spacecraft data resonates well with Dungey's pioneering work. Jim is an enthusiastic, talented and erudite speaker and will speak clearly and authoritatively in the James Dungey lecture.

For these reasons, Professor Wild is awarded the Royal Astronomical Society's James Dungey Lectureship.