

Citation for the 2019 RAS Harold Jeffreys Lectureship: Professor Francis Nimmo

The 2019 RAS Harold Jeffreys Lectureship is awarded to Professor Francis Nimmo.

Professor Nimmo is a Professor of Planetary Sciences at the University of California in Santa Cruz. He undertook a PhD at the University of Cambridge, followed by appointments at the University of Cambridge, University College London, and the University of California at Los Angeles. He is an expert in determining the origin and evolution of solid body surfaces and interiors from observations and geophysical modelling.

Professor Nimmo is the pre-eminent geophysicist in the world in the study of solid icy bodies. In the past twenty years, he has played a major role in the interpretation of Titan, Enceladus, Europa, Pluto and other outer Solar System bodies, primarily through the analysis of data from the Cassini and New Horizon missions. In addition to his work on icy bodies, he proposed a link between plate tectonics and the presence/absence of a dynamo on Mars, Venus and the Earth.

His approach builds on classic geophysical techniques such as those that relate topography and gravity field, and interpretations of surface morphology. He has established many collaborations with geologists, geochemists and cosmochemists, which has enabled a range of striking new discoveries, for example the confirmation of an internal ocean in Enceladus and reorientation of Enceladus. Professor Nimmo is an excellent speaker and is able to communicate his work to those in diverse fields.

For these reasons, Professor Francis Nimmo is awarded the 2019 Royal Astronomical Society Harold Jeffreys Lectureship.