

## **Citation for a 2019 Honorary Fellowship: Dr Glenn Orton**

### **An Honorary Fellowship in Geophysics is awarded to Dr Glenn Orton.**

Dr Glenn Orton of NASA's Jet Propulsion Laboratory has been a leading planetary scientist for four decades. His research focuses on understanding the atmospheres of giant planets, and – in particular – the use of ground-based infrared observations. As a result, he has coordinated numerous campaigns in support of space missions and other key planetary science events. In 1993-5 he coordinated the observations of the impact of comet Shoemaker-Levy 9, spending a month on the summit of Mauna Kea during the impacts themselves (July 1994), and ensured a huge return for the dozens of scientists involved.

His observations of Jupiter during 1995 enabled scientists to understand the data returned by the Galileo probe: Dr Orton showed that the unexpected lack of water clouds was due to the probe entering in a region of dry downdraft. This was a crucial piece of information, since the probe was designed to make in situ measurements of the composition of the jovian atmosphere, with a view to validating models of Solar System formation.

Dr Orton supported the Cassini mission throughout its 20-year cruise to and around Saturn, and he currently coordinates the world-wide ground-based observation team supporting the JUNO mission, which consists of 60 observatories and hundreds of amateur astronomers. Dr Orton has indeed championed the involvement of amateur astronomers in observations that have great research worth in their own right as well as to the space missions they are supporting.

For these reasons, Dr Glenn Orton is awarded a Royal Astronomical Society Honorary Fellowship in Geophysics.