



Royal  
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Society

**RAS Fowler (G) Award 2022**  
**Dr Beatriz Sánchez-Cano**

Dr Beatriz Sánchez-Cano has made a significant contribution to our understanding of the Martian ionosphere, through analysis of data from a range of instruments and missions, and through development of a widely used numerical model. Dr Sánchez-Cano's work has identified important solar cycle and seasonal variations, as well as the ionospheric response to extreme space weather, such as solar energetic particle events. Dr Sánchez-Cano also unveiled the significant impacts of cometary energetic particles and magnetic fields on Mars' ionosphere through analysis of the unique close approach of comet C/2013 A1 Siding Spring to Mars in 2014; the comet interaction resulted in rapid and complex variability in the ionospheric density. Dr Sánchez-Cano contributes to an array of space missions, such as the BepiColombo mission to Mercury, in addition to various current and future Mars missions, including leadership of an ESA Voyage 2050 white paper on Mars' plasma environment. As well as a strong publication record, Dr Sánchez-Cano is an active and enthusiastic communicator of science to a wide variety of audiences.

For these reasons Dr Beatriz Sánchez-Cano is awarded the 2022 RAS Fowler (G) award.