

UK Solar System Planetary Atmospheres Meeting 2020

February 14th 2020
Royal Astronomical Society

Programme Overview:

- 10:00-10:30 Arrival - Tea/Coffee at the RAS; Poster Viewing
10:30-13:00 Session I: Outer Solar System
13:00-14:00 Lunch (Not Provided); Poster Viewing
14:00-15:30 Session II: Inner Solar System
15:30-16:00 Tea @Geological Society

Session I: Outer Solar System (Chair: Naomi Rowe-Gurney)

- 10:30-10:35 Welcome to the UKSSPA Meeting
Leigh N. Fletcher (University of Leicester)
- 10:35-11:00 [Invited] In situ Exploration of Giant Planet Atmospheres
Olivier Mousis (Laboratory of Astrophysics of Marseille)
- 11:00-11:12 Cosmic ray ionization of Ice Giant atmospheres
Karen Aplin (University of Bristol)
- 11:12-11:24 The role of deep jets in bringing order to Jupiter's polar regions
Stephen Thomson (University of Exeter)
- 11:24-11:36 Synergy between Juno and amateur observations of Jupiter: The Great Red Spot as an example
John Rogers (British Astronomical Association)
- 11:36-11:48 Temperature and aerosol variability during Jupiter's 2006-07 Equatorial Zone Disturbance
Arrate Antunano (University of Leicester)
- 11:48-12:00 Exploring clouds and composition of Ice Giants in the visible/near-IR
Patrick Irwin (University of Oxford)
- 12:00-12:12 Investigating the Ice Giants with James Webb Space Telescope during GTO
Naomi Rowe-Gurney (University of Leicester)
- 12:12-12:24 Characterization of the vertical distribution of C₂N₂ in Titan's stratosphere
Melody Sylvestre (University of Bristol)
- 12:24-12:40 Poster Presentations (60s each, single slide)
Sub-Chair: Leigh Fletcher
- 12:40-13:00 [Invited] Exploring Planetary Atmospheres: A Retrospective
Fred W. Taylor (University of Oxford)

Session II: Inner Solar System (Chair: Arrate Antunano)

- 14:00-14:26 [Invited] Observing the atmosphere of Mars with the InSight lander
Aymeric Spiga (Laboratoire de Météorologie Dynamique)
- 14:26-14:38 The dynamics of Mars's annular polar vortices
William Seviour (University of Bristol)
- 14:38-14:50 Assimilation of Mars Satellite Observations with a Mars GCM
James Holmes (Open University)
- 14:50-15:02 On the Photochemistry of Methane and Ethane in the Martian Atmosphere:
Towards Indirect Detection of Methane Emissions
Ben Taysum (University of Edinburgh)
- 15:02-15:14 Ares - An atmospheric retrieval system for the ExoMars Trace Gas Orbiter
George Cann (University College London)
- 15:14-15:26 The ACS investigation of the Martian atmosphere after 1.5 years in operation
Kevin Olsen (University of Oxford)
- 15:26-15:30 Closing Remarks

Poster Presentations:

1. Juan Alday (University of Oxford) - *Atmospheric science using PanCam, ISEM and FAST on the ExoMars 2020 Rover and Surface Platform*
2. Jason Sharkey (University of Bristol) - *Structure and dynamical evolution of Titan's northern polar vortex*
3. Narissa Patel (Open University) - *Distribution of Subsurface Carbon Dioxide Ice at Different Obliquities*
4. Paul Streeter (Open University) - *Martian Polar Vortex Dynamics and the 2018 Global Dust Storm*
5. Nicholas Heavens (Space Science Institute) - *A Multiannual Record of Gravity Wave Activity in Mars's Lower Atmosphere from On-Planet Observations by the Mars Climate Sounder*
6. Lori-Ann Foley (Open University) - *Climate change and the water cycle on Mars*
7. Amethyst Johnson (University of Manchester) - *Modelling aerosol charging in the lower atmosphere of Venus*
8. James Blake (University of Leicester) - *Saturn's Seasonal Atmosphere: Cassini CIRS contrasts to VLT and IRTF observations*
9. Jan Vatant D'Ollone (University of Leicester) - *Radiative modelling of the Ice Giant atmospheres – A first step toward Global Circulation Models*

10. Alexandru Valeanu (University of Oxford) - *From spacecraft data to rover measurements – Martian atmospheric modelling and observations*
11. Gregory Colyer (University of Oxford) - *Semi-grey radiative modelling of Jupiter's atmosphere and clouds*
12. Kevin Douglas (University of Leeds) - *Meteor Ablated Phosphorus as a Source of Bioavailable P to the Terrestrial Planets*