



# BPSC 2026

**British Planetary Science Conference 2026**

**University of St Andrews, 9-11 June**

## **Programme**



University of  
St Andrews



The  
Geological  
Society



Royal  
Astronomical  
Society

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## **Welcome to BPSC2026!**

On behalf of the whole of the Local Organising Committee here in St Andrews, as well the UK Planetary Forum, I'd like to warmly welcome you to the British Planetary Science Conference 2026, here at the University of St Andrews!

We have an excellent, varied and fascinating series of keynote, oral and poster presentations over the next three days, and I'm really excited to hear about the breadth and depth of planetary science research our community has been involved in. We've arranged a brilliant series of social and networking events, including the Icebreaker, ECR Event, and the Conference Dinner and Ceilidh. As always, the community is what makes the meeting, and what I'm most looking forward to is meeting old friends and making new connections at the meeting.

I'd like to mention, and thank, the rest of the Local Organising Committee for their help over the last couple of years: Claire Cousins, Maureen Cohen, Martin Dominik, Emily Finer, Hamish Hay, Ryan MacDonald, Sami Mikhail, Leanne Staddon and Robert Steele. In particular, I'd like to thank Claire Cousins, Emily Finer, Ryan MacDonald and Richard Ghail (Royal Holloway) for help arranging the Workshops, Leanne Staddon for helping to organise the ECR event, Bob Steele for fundraising and sponsorship, and Claire for help with the Community Session. I'd also like to thank Kirstie Elliott from Accommodation, Conferences and Events at the University for all the admin and logistical help, as well as Mark Fox-Powell and Peter Fawdon from the UKPF for lots of help and input from their side. I'd also like to thank the student members of the Local Organisation Committee: Abi Collins, Sterling Davis, Enza Magnier and Grace Nielson, for all their help and hard work!

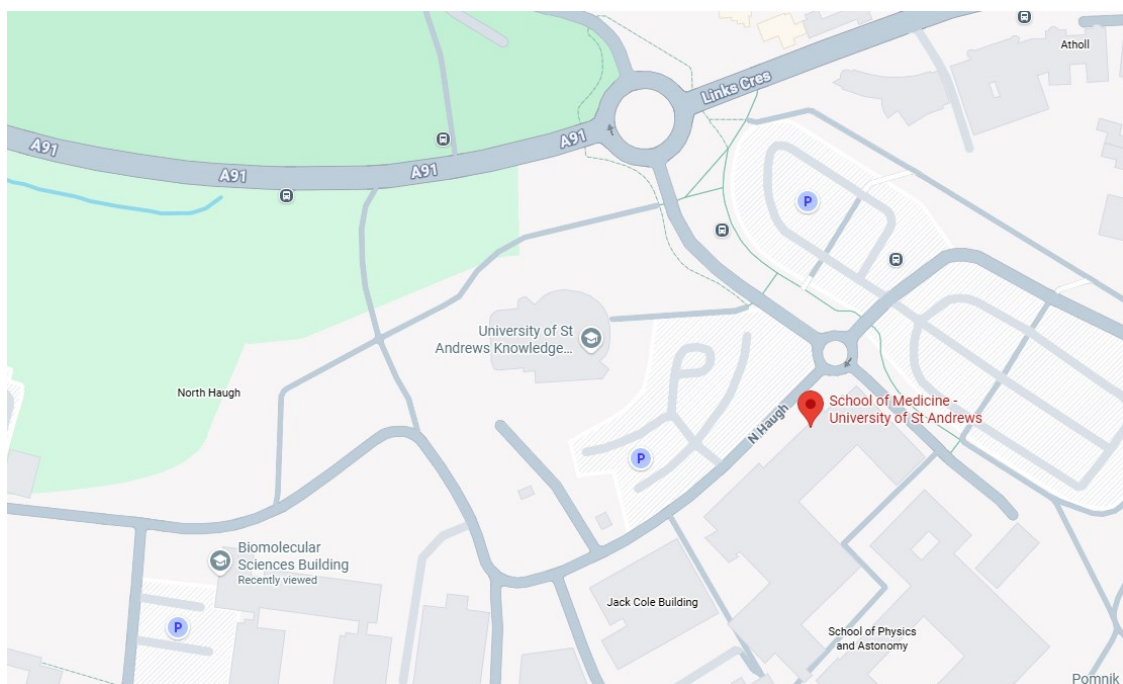
I'd also very much like to extend a huge thanks to our Industry Sponsors – all of whom are listed in this booklet – whose continuing generosity mean BPSC can be an affordable and inclusive conference, particularly for ECRs, MSc and PhD students. Please do visit their booths and attend the Community Session to hear about new events and opportunities – I'm sure they're all excited to meet you!

I genuinely hope you have a great time here in St Andrews!

**Paul Savage**

## Logistics

The whole conference, that is, all oral and poster presentations, as well as lunch and coffee, will be held in the [School of Medicine](#), University of St Andrews, North Haugh, KY16 9TF. The exception is the ESA-UKSA Future Mars Mission discussion, which will be held in Seminar Room of the [Biomolecular Sciences Building](#), which is a 5-minute walk from the School of Medicine. If you get lost, just ask! St Andrews is a friendly place!



## Badge Pickup

You can pick up your badge in the foyer of the School of Medicine from (12pm) Tuesday 11<sup>th</sup> June onwards.

## Catering

Lunch (inc. vegetarian, vegan and GF options) is provided each day of the conference (**including Tuesday!**), from 12:30-13:45pm, served in the School of Medicine. Coffee and tea will be provided on Tuesday PM, Wednesday AM and PM, and Thursday AM.

## Presenters

**Oral:** For a standard talk, you will have 12 mins presentation and 3 mins Q&A (15 mins total). Keynotes have 25 mins presentation and 5 mins Q&A. Please prepare your slides in either PDF or MS Powerpoint format. Bring your slides to the room in which you will be presenting on a USB drive, at the latest in the break before your session starts. You are welcome to upload your talk to the room at any point during the conference before the session you are speaking in. You can also email your talk presentation to [bpsc2026@st-andrews.ac.uk](mailto:bpsc2026@st-andrews.ac.uk), by 8<sup>th</sup> June at the latest.

**Posters:** Posters should be A0 in size and portrait orientation. The poster sessions run from 5-7pm on Tues 9<sup>th</sup> and Wed 10<sup>th</sup>. Each poster should be displayed for both sessions; you can display your poster at any time and leave it up until the end of Thursday lunchtime. Please check your poster number and display your poster on this board. If you are a student, please affix a coloured tag (provided) to your poster to highlight this!

## BPSC 2026 – Schedule Overview

|       | Tuesday 9th June       |                                           |       | Wednesday 10th June   |                                            |                                |       | Thursday 11th June                 |                         |
|-------|------------------------|-------------------------------------------|-------|-----------------------|--------------------------------------------|--------------------------------|-------|------------------------------------|-------------------------|
| 09:00 | Workshops              |                                           | 09:00 | Keynote - Bonsor      |                                            |                                | 09:00 | Keynote - McNeil                   |                         |
| 09:15 |                        |                                           | 09:15 | Booth Lecture Theatre |                                            |                                | 09:15 | Booth Lecture Theatre              |                         |
| 09:30 |                        |                                           | 09:30 | Break                 |                                            |                                | 09:30 | Break                              |                         |
| 09:45 |                        |                                           | 09:45 | Session 1             | Session 2                                  |                                | 09:45 | Session 1                          | Session 2               |
| 10:00 |                        |                                           | 10:00 | Icy Worlds            | Differentiated meteorites and bodies       | Session 3                      | 10:00 | Mars' surface                      | Comets and small bodies |
| 10:15 |                        |                                           | 10:15 |                       |                                            | ESA-UKSA: Future Mars missions | 10:15 |                                    |                         |
| 10:30 |                        |                                           | 10:30 | Booth Lecture Theatre | Seminar Room 1                             |                                | 10:30 | Booth Lecture Theatre              | Seminar Room 1          |
| 10:45 |                        |                                           | 10:45 | Coffee                |                                            |                                | 10:45 | Coffee                             |                         |
| 11:00 |                        |                                           | 11:00 |                       |                                            |                                | 11:00 |                                    |                         |
| 11:15 |                        |                                           | 11:15 | Session 1             | Session 2                                  | Session 3                      | 11:15 | Session 1                          | Session 2               |
| 11:30 |                        |                                           | 11:30 | Icy Worlds cont.      | Differentiated meteorites and bodies cont. | ESA-UKSA: Future Mars missions | 11:30 | Mars' surface cont.                | Outer planets           |
| 11:45 |                        |                                           | 11:45 |                       |                                            |                                | 11:45 |                                    |                         |
| 12:00 |                        |                                           | 12:00 |                       |                                            | Biomolecular Sciences          | 12:00 |                                    |                         |
| 12:15 |                        |                                           | 12:15 | Booth Lecture Theatre | Seminar Room 1                             | Seminar Room                   | 12:15 | Booth Lecture Theatre              | Seminar Room 1          |
| 12:30 | Lunch                  |                                           | 12:30 | Lunch                 |                                            |                                | 12:30 | Lunch                              |                         |
|       |                        |                                           |       |                       |                                            |                                |       |                                    |                         |
| 13:45 | Keynote - van Kooten   |                                           | 13:45 | Keynote - Kompaniiets |                                            |                                | 13:45 | Keynote - UKPF                     |                         |
| 14:00 | Booth Lecture Theatre  |                                           | 14:00 | Booth Lecture Theatre |                                            |                                | 14:00 | Booth Lecture Theatre              |                         |
| 14:15 | Break                  |                                           | 14:15 | Break                 |                                            |                                | 14:15 | Community session and prize giving |                         |
| 14:30 | Session 1              | Session 2                                 | 14:30 | Session 1             | Session 2                                  |                                | 14:30 |                                    |                         |
| 14:45 | Mars Missions          | Primitive meteorites and early solar sys. | 14:45 | Icy Worlds and        | Techniques; Mercury and Venus              |                                | 14:45 |                                    |                         |
| 15:00 |                        |                                           | 15:00 | Astrobiology          |                                            |                                | 15:00 |                                    |                         |
| 15:15 | Booth Lecture Theatre  | Seminar Room 1                            | 15:15 | Booth Lecture Theatre | Seminar Room 1                             |                                | 15:15 |                                    |                         |
| 15:30 | Coffee                 |                                           | 15:30 | Coffee                |                                            |                                | 15:30 |                                    |                         |
| 15:45 |                        |                                           | 15:45 |                       |                                            |                                | 15:45 | Booth Lecture Theatre              |                         |
| 16:00 | Session 1              | Session 2                                 | 16:00 | Session 1             | Session 2                                  |                                | 16:00 |                                    |                         |
| 16:15 | Mars Missions cont.    | Primitive meteorites cont.                | 16:15 | Astrobiology          | Mercury and Venus                          |                                | 16:15 |                                    |                         |
| 16:30 |                        |                                           | 16:30 |                       |                                            |                                | 16:30 |                                    |                         |
| 16:45 | Booth Lecture Theatre  | Seminar Room 1                            | 16:45 | Booth Lecture Theatre | Seminar Room 1                             |                                | 16:45 |                                    |                         |
| 17:00 | Posters and Icebreaker |                                           | 17:00 | Posters               |                                            |                                | 17:00 |                                    |                         |
|       | Exhibition area        |                                           |       | Exhibition area       |                                            |                                |       |                                    |                         |

Links to detailed programme: [Tues PM](#); [Wed AM](#); [Wed PM](#); [Thurs AM](#); [Thurs PM](#); [Posters](#)

## Schedule

|                                                                    |           |                        |                                                                                                                              |
|--------------------------------------------------------------------|-----------|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>Tuesday</b>                                                     | <b>PM</b> |                        |                                                                                                                              |
| <b>Keynote</b><br><i>Booth Lecture Theatre</i>                     | 13:45     | Elishevah van Kooten   | Linking Outer Disk Dynamics to the Accretion of Earth and the Terrestrial Planets                                            |
|                                                                    | 14:15     | <b>Break</b>           |                                                                                                                              |
| <b>Session 1 - Mars Missions</b>                                   |           |                        |                                                                                                                              |
| <i>Booth Lecture Theatre</i>                                       | 14:30     | Alex Stott             | Inferring Global Noise Maps for Future Seismology Missions to Mars                                                           |
|                                                                    | 14:45     | Roger Stabbins         | On the Colours of CaSSIS                                                                                                     |
|                                                                    | 15:00     | Grace Nielson          | Clay mineralogy and IR spectral signatures of Mars analogue sedimentary rocks                                                |
|                                                                    | 15:15     | Harry Marsh            | MarsLife - De“Blur”ing the ExoMars EnfyS Spectrometer’s Data Return                                                          |
|                                                                    | 15:30     | <b>Coffee</b>          |                                                                                                                              |
|                                                                    | 16:00     | Jon Mason              | Investigating the Martian Atmosphere with NOMAD-UVIS aboard ExoMars TGO                                                      |
|                                                                    | 16:15     | Peter Grindrod         | Active Dust Devils in Oxia Planum, Mars: Implications for Solar Power for the Rosalind Franklin Rover                        |
|                                                                    | 16:30     | Kylash Rajendran       | Reconstructing martian winds in 3-D at potential future landing sites using a regional sensor network                        |
|                                                                    | 16:45     | Frances Butcher        | High-resolution orbital imaging of Mars with ‘HiRIME’ – a new UK-led multispectral orbital imager.                           |
| <b>Session 2 - Primitive meteorites and the early solar system</b> |           |                        |                                                                                                                              |
| <i>Seminar Room 1</i>                                              | 14:30     | Judy Wang              | Contemporaneous formation of chondrules and CAIs recorded by Al–Mg dating of individual chondrules                           |
|                                                                    | 14:45     | Paul Baptiste Frossard | Tracking the source of volatile elements to planet with potassium isotopes                                                   |
|                                                                    | 15:00     | Lydia Hallis           | Interrogating the Origins of Extraterrestrial Organics in the Winchcombe Meteorite using combined ESI-Orbitrap LCMS and IRMS |
|                                                                    | 15:15     | Aine O'Brien           | Many midges, three Munros and one elusive Scottish meteorite                                                                 |
|                                                                    | 15:30     | <b>Coffee</b>          |                                                                                                                              |
|                                                                    | 16:00     | Rhian Jones            | Halogen elements in chondrule mesostasis in primitive enstatite chondrites                                                   |
|                                                                    | 16:15     | Grace Alsop            | Mineralogy and Petrography of Ca-Phosphates in Highly Altered CM Chondrites                                                  |
|                                                                    | 16:30     | Emma Belhadfa          | Mid-Infrared Hydration Signatures in Bennu Sample OREX-800107-103                                                            |
|                                                                    | 16:45     | Pierre-Etienne Martin  | Geochemical and Oxygen Isotope Characterisation of Chondrules and Dark Xenolithic Inclusions within Carbonaceous Chondrites  |

## Schedule

|                                                         |       |                   |                                                                                                                                             |
|---------------------------------------------------------|-------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wednesday AM</b>                                     |       |                   |                                                                                                                                             |
| <b>Keynote</b><br><i>Booth Lecture Theatre</i>          | 09:00 | Amy Bonsor        | Cosmochemistry beyond the Solar System                                                                                                      |
|                                                         | 09:30 | <b>Break</b>      |                                                                                                                                             |
| <b>Session 1 - Icy Worlds</b>                           |       |                   |                                                                                                                                             |
| <i>Booth Lecture Theatre</i>                            | 09:45 | Mark Fox-Powell   | Large volumes of eutectic brines quasi-stable under near-vacuum conditions: implications for transient liquids on icy world surfaces        |
|                                                         | 10:00 | Rachael Hamp      | Sodium Chloride Hydrates as a Proxy for Ocean Fluid Freezing Rates on Icy Worlds                                                            |
|                                                         | 10:15 | Hannah Chinnery   | Microstructure Controls Sublimation Timescales of Exposed Salt-Rich Ices on Icy Worlds                                                      |
|                                                         | 10:30 | Bethan Gregory    | Modelling interactions with ice to understand the seasonal variation of HCl                                                                 |
|                                                         | 10:45 | <b>Coffee</b>     |                                                                                                                                             |
|                                                         | 11:15 | Nicole Sutherland | Novel salt hydrates at the conditions of icy worlds                                                                                         |
|                                                         | 11:30 | Solomon Hirsch    | Organic biosignatures from alkaline hydrothermal environments at icy moons                                                                  |
|                                                         | 11:45 | Conor Nixon       | Terrestrial Field Analogs for Titan Geophysical Research                                                                                    |
|                                                         | 12:00 | Kya Sorli         | Detangling Endogenic Heat Signatures on Europa Through Thermophysical Modelling                                                             |
|                                                         | 12:15 | Hyunseong Kim     | Roles of lateral variation in surface temperature and tidal heating in Europa's ice shell                                                   |
|                                                         | 12:30 | <b>Lunch</b>      |                                                                                                                                             |
| <b>Session 2 - Differentiated meteorites and bodies</b> |       |                   |                                                                                                                                             |
| <i>Seminar Room 1</i>                                   | 09:45 | Romain Tartese    | Evidence for aqueous alteration on the Moon from lunar meteorites                                                                           |
|                                                         | 10:00 | Stephanie Halwa   | Noble Gas Inventory of Lunar Highlands Regolith from the Apollo 16 Double Drive Tubes: A Baseline for Future Lunar Polar Missions           |
|                                                         | 10:15 | Yulun Xiao        | Shock remelting recorded by glass in lunar basaltic meteorites                                                                              |
|                                                         | 10:30 | Geoff Bromiley    | Diffusion inhibits heavy isotope enrichment of Zn during magmatic degassing.                                                                |
|                                                         | 10:45 | <b>Coffee</b>     |                                                                                                                                             |
|                                                         | 11:15 | Hayley Lowe       | Experimental Degassing of a Vestan Magma Ocean                                                                                              |
|                                                         | 11:30 | Emily Wackan      | Comparisons Between the Trace Element Composition and Magnetic Structure of the Cloudy Zone in the Imilac and Odessa Iron-Nickel Meteorites |
|                                                         | 11:45 | Nicola Capaldi    | The Results are Shocking: Analysis of high-pressure carbon polymorphs and microdiamonds within the Almahata Sitta Meteorite                 |
|                                                         | 12:00 | Kit-Hung Mark Lee | Investigating potential oxygen isotope heterogeneity within Martian polymict breccias                                                       |
|                                                         | 12:15 | Matthew Sylvest   | Hypervelocity impact and planetary simulation test facilities for the community at the Open University                                      |
|                                                         | 12:30 | <b>Lunch</b>      |                                                                                                                                             |

## Schedule

|                                                             |       |                                        |                                                                                                                                                                     |
|-------------------------------------------------------------|-------|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wednesday AM                                                |       |                                        |                                                                                                                                                                     |
| <b>Session 3 – ESA-UKSA Future Mars Missions</b>            |       |                                        |                                                                                                                                                                     |
| <i>Seminar Room,<br/>Biomolecular<br/>Sciences Building</i> | 10:00 | Natalya Zavina-<br>James <i>et al.</i> | UKSA will provide an overview of ESA strategy and<br>current Mars mission planning                                                                                  |
|                                                             | 10:45 | Group discussion                       | Community-based session to map Frontiers<br>submissions onto the broad ask from ESA, with the<br>opportunity for members of the community to<br>highlight any gaps. |
|                                                             | 12:30 | <b>Lunch</b>                           |                                                                                                                                                                     |

### Parallel workshop on ESA-UKSA: Future Mars missions

Natalya Zavina-James\*, Manish Patel, Joel Davis *et al.*

[Natalya.zavinajames@dsit.gov.uk](mailto:Natalya.zavinajames@dsit.gov.uk)

Wednesday 10<sup>th</sup> June – 10.00am-12:30pm

UKSA and ESA will provide an overview of ESA strategy and current Mars mission planning, how UKSA is engaging with this, and ESA exploration more broadly. This will be followed by a discussion-based session with the community to map Mars-focused Frontiers submissions to future strategic thinking and provide an opportunity for the community to highlight any gaps/nuances. All are welcome to participate.

The session will be held in the Biomolecular Sciences Building, Seminar Room 1, 5 mins walk from the conference venue. Members of the committee will be available to guide you; please do return to the School of Medicine for lunch at 12:30pm.

## Schedule

|                                                      |           |                                     |                                                                                                                                                                                                               |
|------------------------------------------------------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Wednesday</b>                                     | <b>PM</b> |                                     |                                                                                                                                                                                                               |
| <b>Keynote</b><br><i>Booth Lecture Theatre</i>       | 13:45     | Olena Kompaniets                    | Curiosity as an Attention Engine: the Science Kids Framework for Effective STEAM Learning (a Ukrainian Case Study)                                                                                            |
|                                                      | 14:15     | <b>Break</b>                        |                                                                                                                                                                                                               |
| <b>Session 1 - Icy Worlds and Astrobiology</b>       |           |                                     |                                                                                                                                                                                                               |
| <i>Booth Lecture Theatre</i>                         | 14:30     | Angus Aldis                         | Microbes ejected into terrestrial aerosol plumes formed by mechanisms relevant to those at Enceladus                                                                                                          |
|                                                      | 14:45     | Georgina Miles                      | Constraining Enceladus' conductive heat flux                                                                                                                                                                  |
|                                                      | 15:00     | Jessie Hogan                        | Segregation of Enceladus' ocean salts within rapidly frozen droplets at vent-relevant pressures                                                                                                               |
|                                                      | 15:15     | Anna Parsec-Wallis                  | 'Further Analysis into the Plumes of Enceladus'                                                                                                                                                               |
|                                                      | 15:30     | <b>Coffee</b>                       |                                                                                                                                                                                                               |
|                                                      | 16:00     | Leanne Staddon                      | Can serpentinisation drive liberation of bioessential phosphite (P(III)) in Europa's subsurface ocean?                                                                                                        |
|                                                      | 16:15     | Emma Puranen                        | Astrobiology Ethics from an Earthly Analogue: Lessons from Antarctica                                                                                                                                         |
|                                                      | 16:30     | James Salmon                        | Characterising Archean Biosignatures in the 3.2 Ga Moodies Formation of the Barberton Greenstones Belt in South Africa: The Oldest Direct Evidence of Terrestrial Life on Earth, and a Possible Mars Analogue |
|                                                      | 16:45     | Louisa Preston                      | PanCam and Astrobiology – Finding Biosignatures on Mars                                                                                                                                                       |
| <b>Session 2 – Mercury, Venus and other missions</b> |           |                                     |                                                                                                                                                                                                               |
| <i>Seminar Room 1</i>                                | 14:30     | Divya Persaud<br><b>(online)</b>    | Hemispherical Descent Imaging: A Planetary Science Observation Technique Suitable for Small, Low-Cost Probes                                                                                                  |
|                                                      | 14:45     | George Brydon<br><b>(online)</b>    | Supporting the Development of Cameras and Image Analysis for Planetary Science – the SIMply Image Simulator                                                                                                   |
|                                                      | 15:00     | Christopher Brooks                  | The Evolution of the Caloris Basin Rim, Mercury                                                                                                                                                               |
|                                                      | 15:15     | Dave Rothery                        | Nathair and Neidr: two Mercury faculae to test space weathering                                                                                                                                               |
|                                                      | 15:30     | <b>Coffee</b>                       |                                                                                                                                                                                                               |
|                                                      | 16:00     | Jo Egan                             | FeCl <sub>3</sub> : the Venusian unknown UV absorber?                                                                                                                                                         |
|                                                      | 16:15     | Maureen Cohen                       | How long could volcanic plumes persist in the Venus atmosphere?                                                                                                                                               |
|                                                      | 16:30     | Julia Cartwright<br><b>(online)</b> | Preparing for Mercury: Investigating Reduced and Ungrouped Meteorites alongside analogs to understand Mercury's surface composition                                                                           |
|                                                      | 16:45     | Richard Ghail                       | A New View of Venus is Hiding in Plain Sight                                                                                                                                                                  |

## Schedule

|                                                               |       |                                      |                                                                                                                               |
|---------------------------------------------------------------|-------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| <b>Thursday AM</b>                                            |       |                                      |                                                                                                                               |
| <b>Keynote</b><br><i>Booth Lecture Theatre</i>                | 09:00 | Joe McNeil                           | Technicolour Mars: Seeing the Red Planet in a New Light'.                                                                     |
|                                                               | 09:30 | <b>Break</b>                         |                                                                                                                               |
| <b>Session 1 – Mars' surface</b>                              |       |                                      |                                                                                                                               |
| <i>Booth Lecture Theatre</i>                                  | 09:45 | Adam Losekoot                        | The Fluvial History of Hadriacus Cavi, Mars                                                                                   |
|                                                               | 10:00 | Patrick Harkness                     | Shackleton lunar rover                                                                                                        |
|                                                               | 10:15 | Joel Davis                           | The Curiosity rover's recent exploration of Gediz Vallis and the layered sulfate unit, Aeolis Mons, Gale crater, Mars.        |
|                                                               | 10:30 | Steven Banham                        | Recognition of an Ancient Sandstorm within Gale crater: implications for surface processes & paleoatmospheric dynamics.       |
|                                                               | 10:45 | <b>Coffee</b>                        |                                                                                                                               |
|                                                               | 11:15 | Vinayak Shastri                      | The interannual relationship between dust storms and water ice cloud formation on Mars                                        |
|                                                               | 11:30 | James Holmes                         | Data assimilation for Mars: integrating observations with a Global Climate Model to investigate coupled atmospheric processes |
|                                                               | 11:45 | Megan Brown                          | Investigating HCN Chemistry in the Martian Atmosphere                                                                         |
|                                                               | 12:00 | Arjun Patel                          | Assessing habitability and biosignature formation of the Rochette member at the Jezero Crater Floor                           |
|                                                               | 12:15 | Peter Fawdon                         | Science opportunities at the centre of the ExoMars rover 2028 landing ellipse                                                 |
|                                                               | 12:30 | <b>Lunch</b>                         |                                                                                                                               |
| <b>Session 2 – Comets, small bodies and the outer planets</b> |       |                                      |                                                                                                                               |
| <i>Seminar Room 1</i>                                         | 09:45 | Abbie Donaldson                      | The ESA Comet Interceptor mission                                                                                             |
|                                                               | 10:00 | Jake Hanlon                          | Identifying a comet dust tail disruption event with temporal mapping.                                                         |
|                                                               | 10:15 | Vincent Okoth                        | Tracing Coma Jets and Nucleus Rotation in Comets via Narrowband Imaging                                                       |
|                                                               | 10:30 | Thomas Dyer                          | The dependence of asteroid rotation on composition                                                                            |
|                                                               | 10:45 | <b>Coffee</b>                        |                                                                                                                               |
|                                                               | 11:15 | Chrysa Avdellidou<br><b>(online)</b> | The Minor Planet Physical Properties Catalogue                                                                                |
|                                                               | 11:30 | Leigh Fletcher                       | JWST Exploration of Jupiter's Stripes and Storms in 2026                                                                      |
|                                                               | 11:45 | Joshua Ford<br><b>(online)</b>       | Time-variability and north pole enhancement of Titan's atmospheric water abundance                                            |
|                                                               | 12:00 | Jospeh Penn                          | Accelerating Atmospheric Retrievals with a Neural Network Emulator: Mapping H <sub>2</sub> S on Uranus                        |
|                                                               | 12:15 | Carly Howett                         | Surface Temperatures of the Outer Solar System's Major Satellites – and Implications for Observing Them.                      |
|                                                               | 12:30 | <b>Lunch</b>                         |                                                                                                                               |

## Schedule

|                                                          |           |                                 |                                                                            |
|----------------------------------------------------------|-----------|---------------------------------|----------------------------------------------------------------------------|
| <b>Thursday</b>                                          | <b>PM</b> |                                 |                                                                            |
| <b>Keynote</b><br><i>Booth Lecture</i><br><i>Theatre</i> | 13:45     | Tom Barrett<br>(UKPF ECR medal) | Probing the early lunar crust: volatile measurements in paired troctolites |
| <b>Session 1 – Community session</b>                     |           |                                 |                                                                            |
| <i>Booth Lecture</i><br><i>Theatre</i>                   | 14:15     | UKPF                            | UKPF update and BPSC oral/poster prizes                                    |
|                                                          | 14:30     | Callum Piper/Joe McNeil         | Overview of Europlanet and award                                           |
|                                                          | 14:45     | UKSA                            | UKSA updates                                                               |
|                                                          | 15:00     | Elena Favaro<br><b>(online)</b> | ESA Fellowships                                                            |
|                                                          | 15:15     | Leigh Fletcher                  | Space Frontiers update and Q&A                                             |
|                                                          | 15:30     | AOB                             | AOB                                                                        |
|                                                          | 15:45     | Paul Savage                     | Conference wrap-up and thanks                                              |
|                                                          | 16:00     | Close of play                   | Safe journey home!                                                         |

| Poster presentations – Exhibition Space     |                                 |                                                                                                                                            |
|---------------------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Tuesday & Wednesday, 17:00-19:00            |                                 |                                                                                                                                            |
| Number                                      | Presenter                       | Poster title                                                                                                                               |
| <b>Astrobiology</b>                         |                                 |                                                                                                                                            |
| 1                                           | Helen Grant                     | Hypervelocity impacts of DNA on soft metals and implication for capture and characterisation efficiency                                    |
| 2                                           | Abu Baidya                      | Abiotic hydrothermal N <sub>2</sub> reduction supplied <sup>15</sup> N-depleted ammonium to early oceans                                   |
| 3                                           | Alice Koole                     | The Fermi Paradox: Evaluating the Assumption of Interstellar Colonisation                                                                  |
| 4                                           | Grace Phillips                  | Reconstructing a microbial ecosystem on the flanks of a 3.5 Ga volcano                                                                     |
| 5                                           | Marialina Tsinidis              | Tracking phosphorus redox speciation in microbial carbonates through Earth's history and beyond                                            |
| 6                                           | Toni Galloway                   | Viable chemolithoautotrophic metabolisms driven by volcanic gases in modern hot springs as analogues for early Earth and Noachian Mars     |
| <b>Differentiated meteorites and bodies</b> |                                 |                                                                                                                                            |
| 7                                           | Ana Pagu                        | Wringing water out of a stone: In-Situ Resource Utilisation experiments in preparation for the PROSPECT mission                            |
| 8                                           | Auriol Rae                      | Shock Deformation in Quartz: Preliminary Results from Shock Recovery Experiments with Decaying Compressive Pulses                          |
| 9                                           | Eloise Brown                    | Particle Size Effects on Thermal Infrared Emission Spectra of Lizardite                                                                    |
| 10                                          | Flo Wilkinson                   | X-ray Computed Tomography Analysis of Lunar Agglutinates                                                                                   |
| 11                                          | Kieran Bujdosó                  | Lunar South Pole: Analogue Mineralogy and Thermophysical Models                                                                            |
| 12                                          | Kristi Peters - <i>(online)</i> | Raman Spectroscopy Investigation of Space Weathering of Apollo Rock Samples                                                                |
| 13                                          | Lydia Hallis                    | The D/H ratio of the Martian Mantle: Evidence from the Lafayette Meteorite                                                                 |
| 14                                          | Poppy McVann                    | Polarimetric Techniques for Scattering Analysis of the Lunar Surface                                                                       |
| 16                                          | Leanne Staddon                  | Oxidising and sulfur-rich fluids in 2.35 Ga augite-rich shergottite Northwest Africa (NWA) 13467?                                          |
| <b>Exoplanets and ice giants</b>            |                                 |                                                                                                                                            |
| 17                                          | Ben Attwood                     | The uncertain role of Solar Wind forcing in ionospheric heating of the Ice Giants                                                          |
| 18                                          | Tanja Holc                      | Satellite observations and ground-based sampling of Icelandic clays as a tool for interpreting future telescope observations of exoplanets |
|                                             |                                 |                                                                                                                                            |

| Poster presentations – Exhibition Space |                      |                                                                                                                                                          |
|-----------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tuesday & Wednesday, 17:00-19:00        |                      |                                                                                                                                                          |
| Number                                  | Presenter            | Poster title                                                                                                                                             |
| <b>Icy Worlds</b>                       |                      |                                                                                                                                                          |
| <b>19</b>                               | Hamish Hay           | Horizontal Convection in Icy Satellite Oceans with Melting and Freezing                                                                                  |
| <b>20</b>                               | Sarah Howes          | Galileo PPR Thermal Inertia & Albedo Measurements of Europa                                                                                              |
| <b>21</b>                               | Duncan Lyster        | Thermophysical Modelling of Europa's Surface: Detectability of Habitability Indicators                                                                   |
| <b>22</b>                               | Anna Parsec-Wallis   | 'Laboratory Simulations of Negative Ion Formation and Implications for Enceladus-Like Plasma Environments'                                               |
| <b>23</b>                               | Liam Durrant         | Carbon speciation, evolution, and transport through Europa's ice shell: Implications for surface expression of ocean composition                         |
| <b>Mars Missions</b>                    |                      |                                                                                                                                                          |
| <b>24</b>                               | Matthew Read         | Planetary Science Payload Operations at the Open University                                                                                              |
| <b>25</b>                               | Paul Streeter        | Impacts of data assimilation on martian atmospheric ozone                                                                                                |
| <b>26</b>                               | Rebecca Warrilow     | Multispectral Analysis and Geological Characterisation Using the PanCam Training Model                                                                   |
| <b>27</b>                               | Alex Barrett         | A dataset of granular martian analogues, imaged with the PanCam training model.                                                                          |
| <b>28</b>                               | Holly Raynor         | Geological Characterisation of Oxia Planum Analogues using ExoMars Rosalind Franklin Instrument Emulators                                                |
| <b>29</b>                               | Jack Langston        | Dust Coating the Rosalind Franklin Rover Calibration Target and Calibration for PanCam and Enfys                                                         |
| <b>30</b>                               | Nisha Gor            | Remote sensing investigation of fluvial and lacustrine environments in Raetia Palus for the 2028 ExoMars Rosalind Franklin Rover                         |
| <b>31</b>                               | Peter Grindrod       | Spectral Analysis of the Rosalind Franklin Mission Reference Samples with the Enfys Instrument                                                           |
| <b>32</b>                               | Roger Stabbins       | Protocols & Procedures for Joint PanCam x Enfys Operations & Analysis: Synergies Across Colour, Multispectral & Stereo Imaging and Infrared Spectroscopy |
| <b>33</b>                               | Saskia Hagan-Fellows | Assessing Enfys Spectral Performance for Mineral Identification at Oxia Planum                                                                           |
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| Poster presentations – Exhibition Space |                               |                                                                                                                         |
|-----------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Tuesday & Wednesday, 17:00-19:00        |                               |                                                                                                                         |
| Number                                  | Presenter                     | Poster title                                                                                                            |
| <b>Mars' surface</b>                    |                               |                                                                                                                         |
| <b>34</b>                               | Susanne Schwenzer             | The boxwork structures at Gale Crater: a tale of fluids and wind                                                        |
| <b>35</b>                               | Alex Barrett                  | A past wind regime on Mars, as recorded by Transverse Aeolian Ridges.                                                   |
| <b>36</b>                               | Abi Collins                   | Obliquity forcing of Martian atmospheric dynamics                                                                       |
| <b>37</b>                               | Charles Minns                 | Silica on Mars – Quantifying Changes in Silica Polymorphs in Visible-Near Infrared Spectra                              |
| <b>38</b>                               | Claire Kelly                  | Modeling the Martian radiation environment: Impacts on biosignatures and future exploration                             |
| <b>39</b>                               | Frances Butcher               | A geologically recent subglacial palaeolake on Mars                                                                     |
| <b>40</b>                               | Francesca Willcocks           | Compositional Trends in Gale Crater: Comparing the Mg-Sulfate Bearing Unit to Earlier Stratigraphic Units using ChemCam |
| <b>41</b>                               | Mae Fletcher                  | Glacially rafted megablocks on Mars: evidence for a past mid-latitude ice sheet.                                        |
| <b>42</b>                               | Olivia Bennett                | The Mercia and the mudstones of Mars                                                                                    |
| <b>42.5</b>                             | Ben Kirby                     | Multiple, Discrete Channel Incision Episodes in Kasei Valles, Mars, Recorded by Alluvial Fan Stratigraphy.              |
| <b>43</b>                               | Zach Dickeson                 | Fill, spill, incise, demise: Landscape evolution driven by the complete drainage of lake basins on Mars                 |
| <b>Mercury and Venus</b>                |                               |                                                                                                                         |
| <b>44</b>                               | Avishek Ghosal                | Radar Emissivity Variations and Anomalies as Evidence of Recent Volcanism at Idunn Mons, Venus                          |
| <b>45</b>                               | Eloise Crouch                 | The Origin of Polygonal Terrain on Venus                                                                                |
| <b>46</b>                               | Iris van Zelst                | On the seismicity of Artemis Corona – a hypothesised subduction zone on Venus                                           |
| <b>47</b>                               | Shubham Awasthi               | Volcanic Surface Characterisation using a Physically Constrained Model-Based Dual-Polarimetric SAR Decomposition        |
| <b>48</b>                               | Graeme Hall ( <i>online</i> ) | Scientific Target Selection for the Mercury Imaging X-ray Spectrometer in the BepiColombo Mission                       |
| <b>Outer planets</b>                    |                               |                                                                                                                         |
| <b>49</b>                               | Amelia Hankinson-Wake         | An Investigation into Post-Main Sequence Habitability, Second Chance Solar Systems and Titan Under a Red Sun            |
| <b>50</b>                               | Madeleine Heideman            | Exploring Jupiter's Zonal Jets Using a Wave-Mean Flow Interaction and Laboratory Analogue Approach                      |
|                                         |                               |                                                                                                                         |

| Poster presentations – Exhibition Space                   |                 |                                                                                                                  |
|-----------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------|
| Tuesday & Wednesday, 17:00-19:00                          |                 |                                                                                                                  |
| Number                                                    | Presenter       | Poster title                                                                                                     |
| <b><i>Primitive meteorites and early solar system</i></b> |                 |                                                                                                                  |
| <b>51</b>                                                 | Aine O'Brien    | Investigating the effects of Mars-like perchlorates on organics in the Jbilet Winselwan carbonaceous chondrite   |
| <b>52</b>                                                 | Enza Magnier    | Cu and Zn isotope characterisation of the enstatite meteorites                                                   |
| <b>53</b>                                                 | Ethan Cross     | Microscopy at the Atomic Scale, New Techniques Applied to Sulfur Bearing Serpentine from Carbonaceous Chondrites |
| <b>54</b>                                                 | Jody Sutherland | Investigating how volatiles in primitive chondrites respond to aqueous and thermal alteration                    |
| <b>55</b>                                                 | Pippa Lewis     | Investigating the evolution of organics in the early Solar System through in situ analysis of CI chondrites      |
| <b>56</b>                                                 | Sterling Davis  | Zn isotope anomalies in the L chondrite parent body                                                              |
| <b><i>Groups, Techniques and Facilities</i></b>           |                 |                                                                                                                  |
| <b>57</b>                                                 | Mark Nottingham | The UK Planetary Forum – Current and upcoming developments                                                       |
| <b>58</b>                                                 | Jens Barosch    | The Edinburgh Ionprobe Facility: SIMS Analyses to Support Research in Planetary Sciences                         |
| <b>59</b>                                                 | Ross Findlay    | The Godwin Laboratory: Opportunities for UK-based Stable Isotope Research at Cambridge                           |
|                                                           |                 |                                                                                                                  |