UK Space Weather and Space Environment Meeting III: Global Challenges in Understanding the Space Environment & Space Weather at Solar Maximum

## Programme Thursday 11 September

|                       | Plenary Session 6: Impacts (Room: Main Hall)   |   |  |
|-----------------------|--|---|--|
| 9:00 AM -<br>10:00 AM | 9:00 AM Rick Tanner (Keynote Speaker): Radiation risks to human health (terrestrial, air crew, astronauts) due to cosmic radiation 9:30 AM Dimitrios Millas: Impact of recent geomagnetic storms on aviation as observed by PECASUS 9:45 AM Keith Ryden (Invited Speaker): The influence of space weather on electronics |   |  |
|                       | Parallel Session 4A: M-I Coupling  | Parallel Session 4B: Solar & Heliospheric                               |  |
|                       | (Room: Main Hall)  | Forecasting II  |  |
|                       | 10:00 AM Maria-theresia Walach   | (Room: Old Banqueting Hall)   |  |
|                       | (Invited Speaker): Bridging AMPERE   | 10:00 AM Harriet Turner: Using solar                                    |  |
|                       | and SuperDARN: Aligning Field-Aligned  | wind data assimilation results to drive                                 |  |
|                       | Current and Ionospheric Convection   | dynamic solar wind models   |  |
|                       | Boundaries During Geomagnetic  | 10:15 AM Harshita Gandhi (Invited                                       |  |
|                       | Storms   | Speaker): Improving CME forecast  |  |
| 40.00 414             | 10:15 AM Sarah Vines (Invited  | diagnostics from pre-launch to  |  |
| 10:00 AM -            | Speaker): The Utility of AMPERE  | interplanetary space: 3D Analysis,                                      |  |
| 11:00 AM              | for Space Weather Research and   | Magnetic Constraints, and Deep  |  |
|                       | Applications   | Learning  |  |
|                       | 10:30 AM Mario Bisi: RISER -   | 10:30 AM Mathew Owens (Invited  |  |
|                       | Using LOFAR Radio Observations   | Speaker): Solar wind forecasting  |  |
|                       | and Modelling of the Heliosphere-  | without magnetograms  |  |
|                       | Magnetosphere-Ionosphere System  | 10:45 AM Sarah Watson (Invited  |  |
|                       | 10:45 AM Liisa Juusola (Invited  | Speaker): Statistical Analysis of Comet                                 |  |
|                       | Speaker): Drivers of rapid geomagnetic variations at high  | Disconnection Events Using STEREO HI and a Data Assimilative Solar Wind |  |
|                       | latitudes  | Model   |  |
| 11:00 AM -            | Morning Break  |   |  |
| 11:30 AM              | (Room: Hadfield Hall)  |   |  |

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|            | (Room: Main Hall)                      | Forecasting                               |
|------------|--|---|
|            | 11:30 AM Chiara Lazzeri (Invited       | (Room: Old Banqueting Hall)               |
|            | Speaker): The Geomagnetic              | 11:30 AM Lucie Green: Checklist for CME   |
|            | Response to Extreme Southward          | forecasting in advance of an eruption     |
|            | Turnings of the IMF                    | 11:40 AM Robertus Erdelyi: Solar Activity |
|            | 11:40 AM Jean-francois Ripoll (Invited | Monitor Network (SAMNet) -                |
|            | Speaker): New Environment Models of    | Next step in ground-based Space           |
|            | Cold Electrons and Electromagnetic     | Weather forecasting                       |
|            | Waves in the Near-Earth Space and      | 11:50 AM Edmund Henley (Invited           |
| 11:30 AM - | their Impact on Radiation Belt         | Speaker): Lift-and-shift: useful          |
| 1:00 PM    | Electrons                              | approaches from terrestrial weather       |
|            | 11:50 AM Xingzhi Lyu: Modeling         | 12:00 PM Mike Marsh: pyCAT:               |
|            | MeV Radiation Belt Electron            | Rearchitecting Operational CME Analysis   |
|            | Precipitation and Its Atmospheric      | 12:10 PM Ruth Hyndman (Invited            |
|            | Impact Using VERB-4D                   | Speaker): Investigating SEP transport     |
|            | 12:00 PM Steve Milan:                  | using observations and simulations        |
|            | Magnetospheric responses to the        | 12:20 PM Panel Session                    |
|            | October 2024 ICMEs                     |   |
|            | 12:10 PM Clare Watt (Invited           |   |
|            | Speaker): Modelling highly-variable    |   |
|            | processes in the outer radiation belt  |   |
|            | 12:20 PM Panel Session                 |   |
| 1:00 PM -  | Lunch                                  |   |
| 2:00 PM    | (Room: Hadfield Hall)                  |   |
|            | Parallel Session 6A: Space             | Parallel Session 6B: Sun-to-Earth Science |
|            | Environment (Room: Main Hall)          | (Room: Old Banqueting Hall)               |
|            | 2:00 PM Ralph Dinsley (Invited         | 2:00 PM Yiwei Ni: Magnetic Transients     |
|            | Speaker): Neglected Orbits and the     | Associated with a Solar Moreton Wave      |
|            | Emperor's New Clothes: The Critical    | and Its Local Enhancement                 |
|            | Gap in UK Space Situational            | 2:15 PM Philippa Browning (Invited        |
| 2:00 PM -  | Awareness                              | Speaker): Oscillatory reconnection in     |
| 3:00 PM    | 2:15 PM Ashley West: AEGIS:            | coalescing magnetic flux ropes            |
|            | Advancing Protective Space Weather     | 2:30 PM David MacTaggart (Invited         |
|            | Science through Agile Rideshare        | Speaker): The application of magnetic     |
|            | Missions                               | topology approaches to the problem of     |
|            | 2:30 PM Ben Clewer: The next           | solar flare and CME prediction            |
|            | generation of the Surrey Space         | 2:45 PM Pauline Teysseyre: Real-time      |
|            | Controlo CAIDA atmoonharia radiation   |   |
|            | Centre's SAIRA atmospheric radiation   |   |
|            | monitors                               |   |

Parallel Session 5A: Magnetosphere Parallel Session 5B:Sun-to-Earth

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5:15 PM

|                      | 2:45 PM Matthew Brown (Invited Speaker): Improving thermospheric density forecasts for space domain awareness in Low Earth orbit with AENeAS  | detection and characterisation of solar<br>flares from ground-based VLF data |  |
|----------------------|---|--|--|
| 3:00 PM -            | Afternoon Break   |  |  |
| 3:30 PM              | (Room: Hadfield Hall)   |  |  |
| 3:30 PM -<br>5:00 PM | Plenary Session 7: Keynote Speaker and UK-International Community Discussion (Room: Main Hall)  3:30 PM Suzy Bingham: International Collaboration Beyond SWIMMR  4:00 PM Discussion  4:10 PM Richard Horne: The May 2024 Storm: Recommendations from the SEIEG Report  4:30 PM Ian Mccrea: Space weather instrumentation, measurement, modelling and risk (SWIMMR)  4:50 PM Closing remarks |  |  |
| 5:00 PM -            | Close (Room: Main Hall)   |  |  |