



Agenda
Rad-Sat Meeting
16 – 18 October 2019
British Antarctic Survey
High Cross, Madingley Road, Cambridge CB3 0ET

Wednesday 16th October

Arrive 12:00 for lunch at BAS

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|-------|---|-----------------------|
| 13.00 | Introduction | Richard Horne |
| 13.05 | Stakeholder Presentation -
Space Weather/Spacecraft Survivability Challenges for the 2020's | Dave Pitchford, SES |
| 13.35 | Stakeholder Presentation -
UNCLAS briefing, Exercise FALSTAFF | Ewan Haggarty, Airbus |
| 14.00 | MSSL - Simple Forecasting of geosynchronous electron flux | Colin Forsyth |
| 14.30 | Tea Break | |
| 15.00 | Imperial College London
Severe space weather events <ul style="list-style-type: none">• WP6 Progress Report (10 min summary)• Benchmarking and code validation progress• Investigation of different numerical schemes and accuracy in capturing adiabatic invariants• Current work• Discussion around future plans for modelling extreme events | Jonathan Eastwood |
| 15.30 | British Antarctic Survey
Modelling and forecasting the radiation belts <ul style="list-style-type: none">• WP1 Progress Report (10 min summary)• Comparison with GIOVE-A SURF data• New EMIC and chorus diffusion rates• Precipitation | Sarah Glauert |
| 17.30 | End of Day | |
| 18.30 | Dinner – Browns Brasserie
23 Trumpington Street, Cambridge, CB2 1QA | |



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Thursday 17th October

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|-------|---|----------------|
| 09.00 | British Antarctic Survey
Acceleration and loss due to wave-particle interactions <ul style="list-style-type: none">● WP2 Progress Report (10 min summary)● New global chorus model using improved THEMIS coverage● New global model of fpe/fce using data from 5 satellites● Preliminary study of the global distribution of magnetosonic waves● Pilot study: Intensity of hiss as a function of density, L^* and geomagnetic activity | Nigel Meredith |
| 10.00 | University of Reading
Non-linear wave-particle-interactions <ul style="list-style-type: none">● WP3 Progress Report (10 min summary)● Oliver Allanson: Using PIC simulations to extract diffusion coefficients● Sarah Bentley: Methods for determining the dependence of ULF wave diffusion coefficients● Clare Watt (on behalf of Rhys Thompson): Probabilistic L^* models | Clare Watt |
| 11.00 | Coffee Break | |
| 11.30 | MSSL
Electron transport by magnetosonic waves <ul style="list-style-type: none">● WP4 Progress Report (10 min summary)● Jonny Rae: Why are storm-time ULF waves different?● Sam Walton: How coherent are flux variations in the radiation belts?● All: What storms do we want to construct radial transport coefficients for? | Jonny Rae |
| 12.30 | Lunch | |
| 13.30 | University of Sheffield
Solar wind driving of the waves <ul style="list-style-type: none">● WP5 Progress Report (10 min summary)● Richard Boynton: Forecasting model of low band chorus and hiss in the magnetosphere● Homayon Aryan: The parametrisation of wave models for LBC and Hiss | Misha Balikhin |



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| 14.30 | Discussion Topic -
Persistent problems in radiation belt modelling | Sarah Glauert |
| 15.30 | Tea Break | |
| 16.00 | Stakeholder Presentation -
Last Closed Drift Shells in the T89 Model | Jay Albert, AirForce Research
Laboratory |
| 17.00 | End of Day | |



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Friday 18th October

09.00	Discussion Topic - Establishing priorities for future numerical experiments	Oliver Allanson
09.30	Further Topic Discussions/Breakout groups	
10.30	Coffee Break	
11.00	Review of highlights to date	Richard Horne
11.30	Future opportunities and strategic priorities	Richard Horne
12.00	End of Meeting	