

International Magnetosphere Coupling IV (IMC-IV) Workshop

Monday 3 June 2024

Plasmasphere, Ring Current, and Radiation Belts - Lecture Hall (11:45 - 13:15)

-Conveners: Jerry Goldstein; Mary Hudson

| time | [id] title | presenter |
|-------|--|-------------------|
| 11:45 | [10] Theoretical Modelling of the Radiation Belts: Wave-particle interactions, plasma density and strong diffusion | HORNE, Richard |
| 11:55 | [162] Discussion | |
| 12:05 | [11] Ring current and radiation belt contributions to mesoscale precipitation regions | JAYNES, Allison |
| 12:15 | [163] Discussion | |
| 12:25 | [12] Radiation belt acceleration during the geomagnetic storm of 24 March 1991 as a benchmark of an extreme space weather event within the SWIMMR Sat-Risk project | DESAI, Ravindra |
| 12:30 | [164] Discussion | |
| 12:35 | [13] Contribution of MeV Electron Precipitation to Radiation Belt Dropouts | FREUND, Dominique |
| 12:40 | [165] Discussion | |
| 12:45 | [14] Using electron pitch angle distributions to understand long-term radiation belt effects | GREELEY, Ashley |
| 12:50 | [166] Discussion | |
| 12:55 | [15] Drift phase structuring of the entire terrestrial radiation belts | LEJOSNE, Solene |
| 13:00 | [167] Discussion | |
| 13:05 | [282] Additional discussion time | |

Plasmasphere, Ring Current, and Radiation Belts - Lecture Hall (14:30 - 16:00)

-Conveners: Jerry Goldstein; Mary Hudson

| time | [id] title | presenter |
|-------|---|--------------------|
| 14:30 | [16] Mesoscale Processes and their effect on the ring current build up: The Elusive Mode of Plasma Transport and the Measurements Needed to Bring it to Light | GKIOULIDOU, Matina |
| 14:40 | [168] Discussion | |
| 14:50 | [17] A new mechanism for early-time plasmaspheric refilling | ILIE, Raluca |
| 15:00 | [169] Discussion | |
| 15:10 | [18] A missing Dusk-side Loss Process in the Electron Ring Current | HAAS, Bernhard |
| 15:15 | [171] Discussion | |
| 15:20 | [19] The modified Versatile near-Earth environment of Radiation Belts and ring current 4D (VERB-4D) code | HIMMELSBACH, Julia |
| 15:25 | [172] Discussion | |

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|-------|--|--------------------------|
| 15:30 | [20] Global Validation of the Data-Assimilative VERB-3D Code for the Radiation Belts | GARCÍA PEÑARANDA, Marina |
| 15:35 | [170] Discussion | |
| 15:40 | [283] Additional discussion time | |

Plasmasphere, Ring Current, and Radiation Belts - Lecture Hall (16:15 - 17:45)

-Conveners: Mary Hudson; Jerry Goldstein

| time | [id] title | presenter |
|-------|--|-------------------|
| 16:15 | [34] The influence of substorm activity on the ring current dynamics | YUE, Chao |
| 16:25 | [181] Discussion | |
| 16:35 | [35] Imaging Plasmaspheric Dynamics Using Radio Frequency Signals | MALASPINA, David |
| 16:45 | [179] Discussion | |
| 16:55 | [36] Plasmaspheric plumes : importance and dynamics | DARROUZET, Fabien |
| 17:05 | [180] Discussion | |
| 17:15 | [37] A new inner magnetosphere model designed for multiscale whole geospace modeling | SCIOLA, Anthony |
| 17:20 | [182] Discussion | |
| 17:25 | [284] Additional discussion time | |

Tuesday 4 June 2024

Plasmasphere, Ring Current, and Radiation Belts - Lecture Hall (16:15 - 17:45)

-Conveners: Mary Hudson; Jerry Goldstein

| time | [id] title | presenter |
|-------|---|------------------|
| 16:15 | [81] Open questions in ion outflow and the source of magnetospheric plasma | GLOCER, Alex |
| 16:25 | [275] Discussion | |
| 16:35 | [82] Global modeling of transport in the magnetosphere: The large effect of small scales | SORATHIA, Kareem |
| 16:40 | [278] Discussion | |
| 16:45 | [83] Evaluating the uncertainties in global MHD and Test-Particle simulations of the Earth's radiation belts | TONG, Yihui |
| 16:50 | [277] Discussion | |
| 16:55 | [84] Earth's ultrarelativistic electron acceleration: current understanding and future exploration | ZHAO, Hong |
| 17:00 | [280] Discussion | |
| 17:05 | [85] The Role of Local Acceleration and Radial Diffusion in multi-MeV Electron Enhancements | SAKIN, Anthony |
| 17:10 | [281] Discussion | |
| 17:15 | [86] Characteristics of electron microburst precipitation: recent results and upcoming missions | MILLAN, Robyn |
| 17:20 | [279] Discussion | |
| 17:25 | [87] Understanding loss drivers in Earth's outer radiation belt during solar wind pressure enhancements: Observations and simulations | WANG, Xiaoyu |
| 17:30 | [276] Discussion | |
| 17:35 | [291] Additional discussion time | |

Thursday 6 June 2024

Plasmasphere, Ring Current, and Radiation Belts - Lecture Hall (10:00 - 11:30)

-Conveners: Jerry Goldstein; Mary Hudson

| time | [id] title | presenter |
|-------|--|-----------------------|
| 10:00 | [120] Cold Electrons and Electromagnetic Waves in the Plasmasphere With Application to Wave-Particle Interactions and Active Experiments | RIPOLI, Jean-Francois |
| 10:10 | [204] Discussion | |
| 10:20 | [121] Radiation belt electron loss from an observational perspective | BLUM, Lauren |
| 10:30 | [205] Discussion | |
| 10:40 | [141] Modelling magnetopause shadowing in 4D drift-resolved Salammbô simulations | KIRAZ, Rabia |
| 10:45 | [201] Discussion | |
| 10:50 | [122] Distribution of seed electron phase space density minima in Earth's radiation belts | DROZDOV, Alexander |
| 10:55 | [202] Discussion | |
| 11:00 | [123] Validation of model results in response to the COSPAR ISWAT challenge | WANG, Dedong |
| 11:05 | [203] Discussion | |
| 11:10 | [124] Electron Precipitation into the South Atlantic Anomaly During Geomagnetic Storms | GRISHINA, Alina |
| 11:15 | [200] Discussion | |
| 11:20 | [295] Additional discussion time | |