

“Quantitative Assessment of Radiation Belt Modeling” Focus Group Agenda

GEM 2018 Summer Workshop

Session 1 (Wed, 03:30-05:00 PM, Zia Ballroom): “RB enhancement”.

Chairs: Weichao Tu and Steve Morley

1. **Mary Hudson (scene-setting talk, 15min):** Recent Advances and Open Questions in RB Enhancements
2. **Alex Boyd:** What Causes Radiation Belt Enhancements: A Survey of the Van Allen Probes Era
3. **Hong Zhao:** Effects of Solar Wind and Magnetospheric Processes on the Ultra-Relativistic Electron Acceleration in the Outer Radiation Belt
4. **Adam Kellerman:** Quantitative analysis of the radiation-belt electron phase-space-density response to stream-interaction regions utilizing the data-assimilative VERB code
5. **Zhao Li:** Relativistic electron advection during CME-shock driven storms
6. **Leng Ying Khoo:** On the Initial Enhancements of Energetic Electrons and the Innermost Plasmapause Locations During Storm Periods
7. **Dedong Wang:** VERB Simulation for GEM Challenge Events
8. **Ivan Vasko:** Electrostatic Steepening of Whistler Waves
9. **Anton Artemyev:** Electron nonlinear resonant interaction with short and intense parallel chorus wave-packets

Session 2 (Thu, 10:30 AM-12:00 PM, Anasazi Ballroom): “RB dropout”.

Chairs: Jay Albert and Wen Li

1. **Sasha Ukhorskiy (scene-setting talk, 15min):** Recent Advances and Open Questions in RB Dropouts
2. **Seth Claudepierre:** Empirical estimates of electron lifetimes in the radiation belts
3. **Zheng Xiang:** A statistical survey of radiation belt dropouts observed by Van Allen Probes
4. **Joe Borovsky:** MeV-Electron Dropouts without MeV-Proton Dropouts
5. **Luisa Capannolo:** Understanding the driver of energetic electron precipitation using coordinated multi-satellite measurements (24 September 2013 Challenge Event)
6. **Mark Engebretson:** EMIC wave events during the four GEM QARBM challenge intervals
7. **Armando Maldonado:** On the diffusion rates of electron bounce resonant scattering by magnetosonic waves
8. **Oleksiy Agapitov:** Chorus-microburst relations and the corresponding scaling
9. **Alexander Drozdov:** Modeling of a non-storm dropout event
10. (walk-in) **Robyn Millan:** Newly selected REAL CubeSat Mission

Session 3 (Thu, 03:30-05:00 PM, Zia Ballroom): “Wrap-up and Future overlook”

Chairs: Steve Morley and Jay Albert

1. **Steve Morley:** Summary of RB Enhancement and Dropout Challenges
2. **Lauren Blum:** Newly selected CubeSat mission at GTO orbit
3. **Xinlin Li:** Newly selected CubeSat: Inner Radiation Belt Experiment (CIRBE)
4. **James McCollough:** Update on DSX Mission
5. **Panel Discussions:** Remaining Open Questions and Future Directions of Radiation Belt Studies

Panelists: Jacob Bortnik, Allison Jaynes, Wen Li, Geoff Reeves, and Drew Turner