

LOSS MECHANISMS IN THE RADIATION BELTS: COMPARING DROPOUTS AND FLUX DECAYS SIMULATED AND OBSERVED BY PROBA-V/EPT AND VAN ALLEN PROBES/MAGEIS

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MEETING



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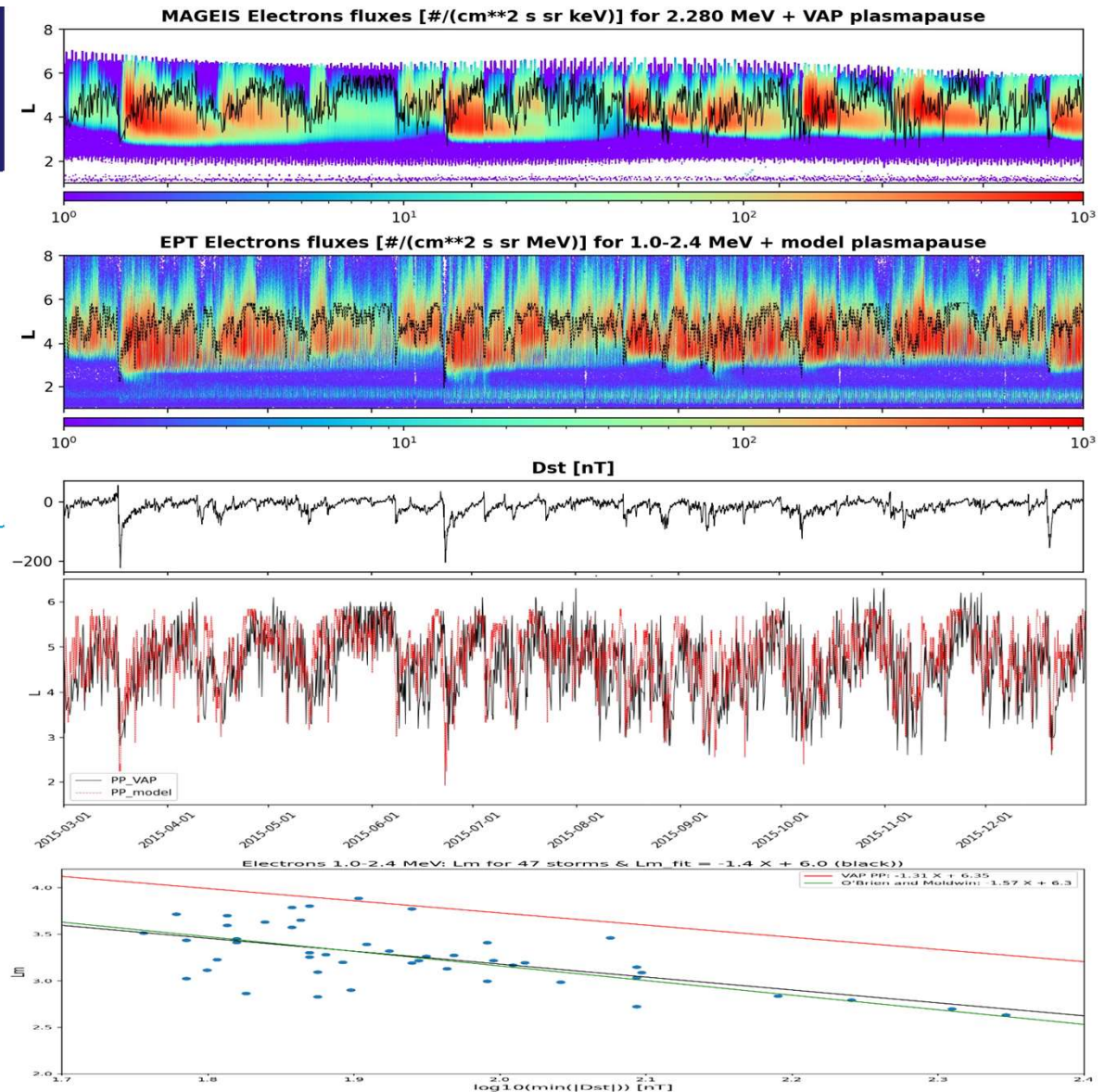
PIERRARD VIVIANE

Comparing dropouts, flux decays and plasmopause observed by Van Allen Probes/MAGEIS and EMFISIS

and PROBA-V/EPT measurements

Loss mechanisms

- Dropouts (magnetopause shadowing)
- Flux decay (plasmaspheric hiss waves)





FLUX DECAY AFTER STORMS

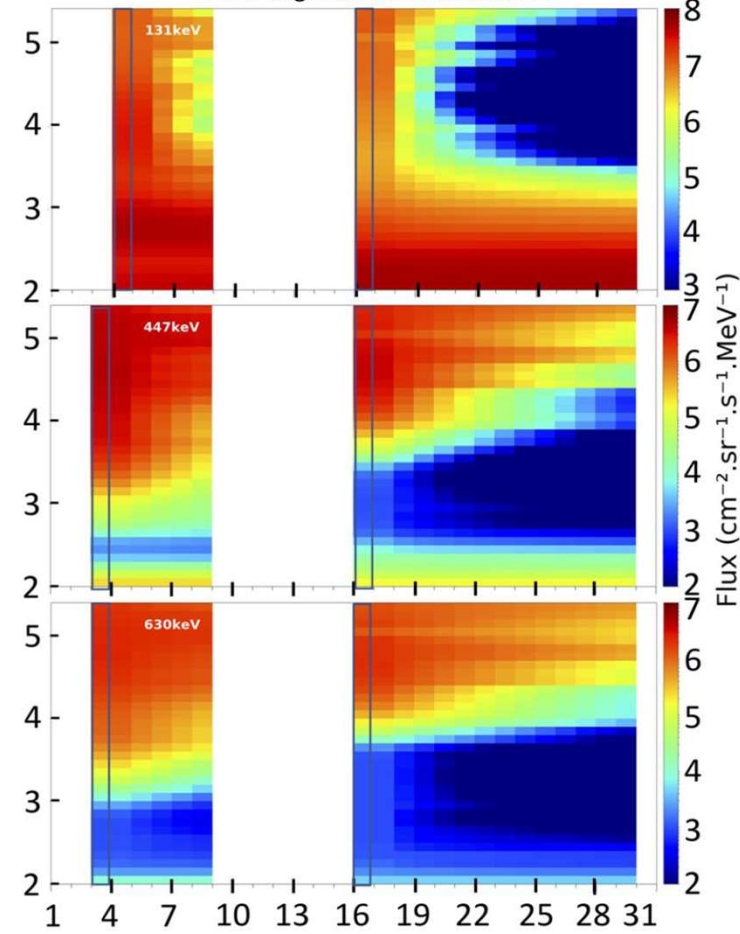
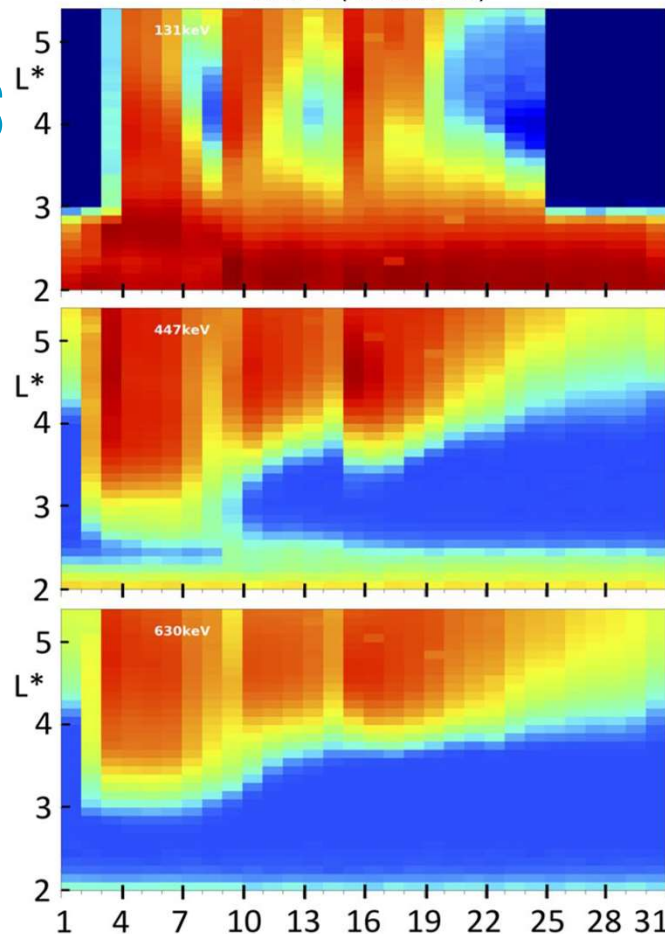
RBSP observations (left)

compared to

Fokker-Planck
simulations including
plasmaspheric hiss

RBSP-A (24-hour bin)

Pitch angle diffusion simulation



October 2013

THANK YOU

Pierrard et al., JGR, doi: 10.1029/2018JA026289, 2020 (EPT/PS)
Pierrard et al., JGR, doi:10.1029/2020JA028850, 2021 (RB simul)
Pierrard, Botek, Darrouzet, Front. doi:10.3389/fspas.2021.681401, 2021 (PS)
Pierrard et al., Frontiers, doi: 10.3389/fspas.2021.728531, 2021 (Aurora)

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