

Flux evolutions of relativistic electrons of the outer radiation belt as seen from the first year observation of Arase

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The Arase satellite was successfully launched in December 2016 and then started the regular observations from March 2017. Since then, the Arase satellite observed several magnetic storms and flux evolutions driven by CMEs and CIRs. For the CIR-driven storms, large flux enhancements were sometimes observed during the period of coronal-hole high speed streams, and dependences of the Russel-McPherron effects are found in these events. The Arase also observed three CME-driven storms, and one of the severe magnetic storms with minimum Dst index of -142 nT was observed in early September. In this presentation, we will discuss the relationship between the flux enhancements and chorus wave activities derived from Arase/PWE measurements and the low-altitude satellite data.

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