

コロナホール流に伴う放射線帯外帯電子増加：あらせ観測

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Flux enhancements of relativistic electrons of the outer radiation belt associated with coronal hole streams

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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 has observed several flux enhancement events associated with coronal hole streams. Large flux enhancements of relativistic electrons were sometimes observed by Arase/HEP and XEP instruments during the period of coronal-hole high speed streams, and the flux enhancements basically occur associated with the prolonged southward IMF controlled by the Russell-McPherron effect. In this presentation, we will examine the relationship between the large-scale solar wind structure and flux enhancements of relativistic electrons in the period for the second half of 2017, especially focusing on the energy dependence of the flux enhancements. Moreover, we will discuss a role of chorus wave activities in the electron flux enhancement, which have been obtained from the Arase/PWE measurements and the low-altitude satellite data.