

## Energetic electrons observed in the plasma sheet near the outer radiation belt

\*篠原 育<sup>1</sup>、長井 嗣信<sup>8</sup>、三谷 烈史<sup>1</sup>、笠原 慧<sup>2</sup>、風間 洋一<sup>3</sup>、Wang Shiang-Yu<sup>3</sup>、Tam Sunny W. Y.<sup>4</sup>、東尾 奈々<sup>5</sup>、松岡 彩子<sup>1</sup>、浅村 和史<sup>1</sup>、横田 勝一郎<sup>6</sup>、高島 健<sup>1</sup>、三好 由純<sup>7</sup>

\*Iku Shinohara<sup>1</sup>, Tsugunobu Nagai<sup>8</sup>, Takefumi Mitani<sup>1</sup>, Satoshi Kasahara<sup>2</sup>, Yoichi Kazama<sup>3</sup>, Shiang-Yu Wang<sup>3</sup>, Sunny W. Y. Tam<sup>4</sup>, Nana Higashio<sup>5</sup>, Ayako Matsuoka<sup>1</sup>, Kazushi Asamura<sup>1</sup>, Shoichiro Yokota<sup>6</sup>, Takeshi Takashima<sup>1</sup>, Yoshizumi Miyoshi<sup>7</sup>

1. 宇宙航空研究開発機構／宇宙科学研究所、2. 東京大学大学院理学系研究科、3. 中央研究院天文及天文物理研究所、4. 國立成功大學、5. 宇宙航空研究開発機構／研究開発部門、6. 大阪大学大学院理学研究科、7. 名古屋大学／宇宙地球環境研究所、8. 東京工業大学大学院理工学研究科

1. Japan Aerospace Exploration Agency/Institute of Space and Astronautical Science, 2. University of Tokyo / Graduate School of Science, 3. Academia Sinica/Institute of Astronomy and Astrophysics, 4. National Cheng Kung University, 5. Japan Aerospace Exploration Agency/Research and Development Directorate, 6. Osaka University / Graduate School of Science, 7. Nagoya University/Institute for Space-Earth Environment Research, 8. Tokyo Institute of Technology / Graduate School of Science and Engineering

Energetic electron bursts observed in the plasma sheet near the outside edge of the outer radiation belt are surveyed by using the data obtained by Arase (ERG) during the last summer from May to July, 2017, when the apogee local time was located around the midnight. The orbital inclination of Arase is about 31 degrees, so that Arase can observe higher latitude plasma sheet near the plasma sheet boundary, and, as expected, Arase observed the plasma sheet just outside of the outer radiation belt. In these observations, we found that energetic electron bursts up to 500 keV frequently appear at higher L-value plasma sheet. There were 36 electron burst events during the interval. Possible sources of these energetic electron bursts of a few hundreds keV in the region are (1) directly accelerated from magnetotail reconnection sites and (2) dispersion-less injections. It is interesting to distinguish the acceleration source of them and address each contribution of the energy input to the radiation belt for understanding the relation between magnetotail reconnection and the acceleration of MeV electrons in the radiation belts. These electron bursts do not show beam like velocity distributions, and, in some events, bursts are associated with the injection like magnetic field fluctuation. We will discuss these characteristics of the observed energetic electron bursts by using the wide-range electron distribution measurements.

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