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ポスター 1：11/25　AM1/AM2（9:15-12:35）

#風間 洋一 [1)], Jun ChaeWoo[2)], 堀 智昭 [3)], 三好 由純 [4)], 浅村 和史 [5)], 笠原 慧 [6)], 横田 勝一郎 [7)], Wang Bo-Jhou[1)], Wang Shiang-Yu[1)], Tam Sunny[8)], Chang Tzu-Fang[8)], 桂華 邦裕 [6)], 松岡 彩子 [9)], 寺本 万里子 [10)], 山本 和弘 [11)], 篠原 育 [5)]
([1]ASIAA, [2] Ｎａｇｏｙａ　Ｕｎｉｖｅｒｓｉｔｙ, [3] 名古屋大学・宇宙地球環境研究所, [4] 名古屋大学, [5] 宇宙航空研究開発機構, [6] 東京大学, [7] 大阪大学大学院, [8]Institute of Space and Plasma Sciences, National Cheng Kung University, Tainan, Taiwan, [9] 京都大学, [10] 九州工業大学, [11] 名古屋大学宇宙地球環境研究所

Recent updates of Level-2/-3 datasets of the LEPe instrument on the Arase satellite

#Yoichi Kazama[1)], Chaewoo JUN[2)], Tomoaki HORI[3)], Yoshizumi MIYOSHI[4)], Kazushi ASAMURA[5)], Satoshi KASAHARA[6)], Shoichiro YOKOTA[7)], Bo-Jhou Wang[1)], Shiang-Yu Wang[1)], Sunny Tam[8)], Tzu-Fang Chang[8)], Kunihiro KEIKA[6)], Ayako MATSUOKA[9)], Mariko TERAMOTO[10)], Kazuhiro YAMAMOTO[11)], Iku SHINOHARA[5)]
([1]Academia Sinica Institute of Astronomy and Astrophysics, [2]Nagoya University, [3]Nagoya University, [4]Nagoya University, [5]ISAS/JAXA, [6]University of Tokyo, [7]Osaka University, [8]Institute of Space and Plasma Sciences, National Cheng Kung University, Tainan, Taiwan, [9]Kyoto University, [10]Graduate School of Engineering, Kyushu Institute of Technology, [11]Nagoya University

We present recent updates of the datasets of the Low-Energy Particle Experiments - Electron Analyzer (LEPe) onboard the Arase satellite. Calibration for LEPe data requires evaluating the effects of background radiation and estimating the absolute sensitivity of the detector channels. Accounting for such factors, our calibration method consists of the following steps: (1) evaluation of sensitivity differences between the background channel and the electron channels, (2) relative sensitivity correction among the electron channels, and (3) estimation of the absolute quantum efficiency of the micro-channel plates (MCPs). In each calibration step, the data process is modeled using parameters to incorporate temperature dependence and time variation of detector properties. On March 1, 2023, the MCP voltage was increased to enhance electron detection sensitivity. In response to the voltage increase, the calibration parameters have recently been updated for measurement data after the voltage change operation. The newly calibrated data with versions ”05” and ”06” are going to be released shortly. Alongside the update of the dataset, we also refined data structure of LEPe Level-2 and Level-3 datasets in Common Data Format (CDF) for more consistent naming of variables, better index ordering, and also excluding rarely-used packet data, to improve data usability. In this presentation, we will introduce the updated datasets, discuss MCP detector degradation, and highlight the improvements made to the new data structure.