

■研究業績（2014年度）

○論文

- [1] S. Matsuda, Y. Kasahara, and Y. Goto, M/Q = 2 Ion Distribution in the Inner Magnetosphere Estimated from Ion Cyclotron Whistler Waves Observed by the Akebono Satellite, *Journal of Geophysical Research*, (in press), doi:10.1002/2014JA020972, 2015.3.
- [2] 笠原 禎也, 後藤 由貴, 大池 悠太, あけぼの衛星アナログ広帯域受信器による観測データの自動較正法, *宇宙科学情報解析論文誌*, 4, pp.41-49, 2015.3.
- [3] 矢木 大介, 村田 健史, 笠原 禎也, 科学衛星で観測された波形データ処理を用いたNICTサイエンスクラウド上での並列分散処理の評価, *情報知識学会誌*, 25(1), pp.178-183, 2015.2.
- [4] Y. Oike, Y. Kasahara, and Y. Goto, Spatial Distribution and Temporal Variations of Occurrence Frequency of Lightning Whistlers Observed by VLF/WBA onboard Akebono, *Radio Science*, 49(9), pp.753-764, doi:10.1002/2014RS005523, 2014.9.
- [5] S. Matsuda, Y. Kasahara, and Y. Goto, High-altitude M/Q = 2 Ion Cyclotron Whistlers in the Inner Magnetosphere Observed by the Akebono Satellite, *Geophysical Research Letters*, 41(11), pp.3759-3765, doi:10.1002/2014GL060459, 2014.6.
- [6] S. Matsuda, Y. Kasahara, and Y. Goto, Electromagnetic Ion Cyclotron Waves Suggesting Minor Ion Existence in the Inner Magnetosphere Observed by the Akebono Satellite, *Journal of Geophysical Research*, 119(6), pp.4348-4357, doi:10.1002/2013JA019370, 2014.6.
- [7] V. Agapitov, A. V. Artemyev, D. Mourenas, Y. Kasahara, and V. Krasnoselskikh, Inner Belt and Slot Region Electron Lifetimes and Energization Rates Based on AKEBONO Statistics of Whistler Waves, *Journal of Geophysical Research*, 119(4), pp.2876-2893, doi:10.1002/2014JA019886, 2014.4.
- [8] Y. Goto, R. Moriuchi, Y. Kasahara, A. Kumamoto, Estimation of Low-Frequency Reflectivity of Lunar Surface Using Natural Waves Observed by the KAGUYA, *Proc. AOGS 11th Annual Meeting*, PS16-A019, 2014.7.
- [9] Y. Goto, K. Uda, Y. Kasahara, and K. Hashimoto, Latitudinal Distribution of Auroral Kilometric Radiation Ordinary and Extraordinary Wave Modes Observed by KAGUYA, *Proc. 31th URSI GASS*, doi:10.1109/URSIGASS.2014.6929952, 2014.8
- [10] Y. Kasahara, K. Kanatani, Y. Goto, K. Hashimoto, Y. Omura, M. N. Nishino, H. Tsunakawa, and T. Ono, Study on Plasma Waves and Electron Density Profile around the Moon Observed by KAGUYA in the Solar Wind, *Proc. 31th URSI GASS*, doi:10.1109/URSIGASS.2014.6929918, 2014.8.

- [11] Y. Goto, K. Shima, T. Kanbayashi and Y. Kasahara, Onboard Identification of Plasma Waves Based on Large-data Clustering and its Feature Aggregation, Proc. of European Planetary Science Congress 2014, EPSC2014-106, 2014.9.
- [12] Y. Kasahara, Y. Goto, S. Yamawaki, and H. Matsui, Evaluation of Data Compression Techniques Applicable for Plasma Wave Instruments, Proc. of European Planetary Science Congress 2014, EPSC2014-260, 2014.9.
- [13] Ozaki, M., S. Yagitani, K. Takahashi, T. Imachi, H. Koji, and R. Higashi (2015), Equivalent circuit model for the electric field sensitivity of a magnetic search coil of space plasma, IEEE Sensors Journal, vol.13, issue 3, pp.1680-1689, doi:10.1109/JSEN.2014.2365495
- [14] C. Martinez-Calderon, K. Shiokawa, Y. Miyoshi, M. Ozaki, I. Schofield, and M. Connors (2015), Polarization analysis of VLF/ELF waves observed at subauroral latitudes during the VLF-CHAIN campaign, Earth, Planets and Space, 67:21, doi:10.1186/s40623-014-0178-7
- [15] High-z gamma-ray bursts for unraveling the dark ages mission HiZ-GUNDAM, SPIE, Volume 9144, id. 91442S 12 pp. (2014), Yonetoku, D., Mihara, T., Sawano, T. 他 27 名
- [16] Establish of Gravitational Wave Astronomy with Gamma-Ray Burst and X-ray Transient Monitor, UNISEC Space Takumi Journal, Vol.5, No.2, pp.19-27 (2014), Yonetoku,D., Sawano, T., Takata, S., et al.
- [17] Short Gamma Ray Burst Formation Rate from BATSE data using E_p - L_p correlation and the minimum gravitational wave event rate of coalescing compact binary, Astrophysical Journal, 789, 65 (2014), Yonetoku, D., Nakamura, T., Sawano, T., Takahashi, K., and Toyonago, A.
- [18] U. Hishi, R. Fujimoto, T. Kuniyoshi, S. Takakura, T. Mitsude, K. Kamiya, M. Kotake, A. Hoshino, K. Shinozaki, Magnetic Shielding of an Adiabatic Demagnetization Refrigerator for TES Microcalorimeter Operation, J. Low Temp. Phys. 176, 1075-1081 (2014)
- [19] P. Shirron, M. DiPirro, M. Kimball, G. Sneiderman, F.S. Porter, C. Kilbourne, R. Kelley, R. Fujimoto, S. Yoshida, Y. Takei, K. Mitsuda, Operation of an ADR using helium exchange gas as a substitute for a failed heat switch, Cryogenics 64, 207-212 (2014)
- [20] I. Mitsuishi, Y. Ezoe, K. Ishikawa, T. Ohashi, R. Fujimoto, K. Mitsuda, S. Tsunematsu, S. Yoshida, K. Kanao, M. Murakami, M. DiPirro, P. Shirron, SXS team, He flow rate measurements on the engineering model for the Astro-H Soft X-ray Spectrometer dewar, Cryogenics 64, 189-193 (2014)

- [21] Yoichi Sato, Kenichiro Sawada, Keisuke Shinozaki, Hiroyuki Sugita, Toshiyuki Nishibori, Ryota Sato, Kazuhisa Mitsuda, Noriko Y. Yamasaki, Yoh Takei, Ken Goto, Takao Nakagawa, Ryuichi Fujimoto, Kenichi Kikuchi, Masahide Murakami, Shoji Tsunematsu, Kiyomi Ootsuka, Kenichi Kanao, Katsuhiko Narasaki, Development status of the mechanical cryocoolers for the Soft X-ray Spectrometer on board Astro-H, *Cryogenics* 64, 182-188 (2014)
- [22] S. Takeda, M. S. Tashiro, Y. Ishisaki, M. Tsujimoto, H. Seta, Y. Shimoda, S. Yamaguchi, S. Uehara, Y. Terada, R. Fujimoto, K. Mitsuda, Performance verification and system integration tests of the pulse shape processor for the soft x-ray spectrum onboard ASTRO-H, *Proc. SPIE* 9144, id 91445B 7 pp. (2014)
- [23] K. Mitsuda, R. L. Kelley, H. Akamatsu, T. Bialas, K. R. Boyce, G. V. Brown, E. Canavan, M. Chiao, Meng, E. Costantini, J.-W. den Herder, C. de Vries, M. J. DiPirro, M. Eckart, Y. Ezoe, R. Fujimoto, D. Haas, A. Hoshino, K. Ishikawa, Y. Ishisaki, N. Iyomoto, C. A. Kilbourne, M. Kimball, S. Kitamoto, S. Konami, M. A. Leutenegger, D. McCammon, J. Miko, I. Mitsuishi, H. Murakami, M. Murakami, H. Noda, M. Ogawa, T. Ohashi, A. Okamoto, N. Ota, S. Paltani, F. S. Porter, K. Sato, Y. Sato, M. Sawada, H. Seta, K. Shinozaki, P. J. Shirron, G. A. Sneiderman, H. Sugita, A. Szymkowiak, Y. Takei, T. Tamagawa, M. S. Tashiro, Y. Terada, M. Tsujimoto, S. Yamada, N. Y. Yamasaki, Soft x-ray spectrometer (SXS): the high-resolution cryogenic spectrometer onboard ASTRO-H, *Proc. SPIE* 9144, id 91442A 7 pp. (2014)

○受賞

- [1] 日本地球惑星科学連合(JpGU)2014 年大会 学生優秀発表賞, 松田 昇也, 笠原 禎也, 後藤 由貴, あげぼので観測された $M/Q=2$ イオンサイクロトロンホイストラの解析, 日本地球惑星科学連合, 2014.5.29.