

ジオスペース探査における衛星-地上観測データの統合解析の重要性：宇宙科学連携拠点ERGサイエンスセンターの取り組みから Importance of integrated data analysis for geospace science

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The geospace environment is characterized by dynamic process which link sun/solar wind to the changes in the near Earth space environment. Many attractive phenomena in geospace occur in the inner magnetosphere, for example, enhancement of ring current that causes magnetic storms, and disappearance and rebuilding of the MeV electrons in the radiation belts. In-situ and ground-based observation systems provide various kinds of the observation data to support our understanding of the geospace. Since the geospace is a complex coupled system and elementary process at different energies and regions affect and are affected by each other, the integrated analysis system is needed in order to address the interconnection of each elementary process and to understand the geospace as a global coupled system. In order to realize such integrated analysis environment, the ERG-Science Center operated by ISAS/JAXA and STEL/Nagoya University have developed the integrated data analysis system. The standard data format and the common analysis software are a key technology for the system. The ERG project data are archived with the NASA/CDF format and opened to the public, and the analysis procedures that are plug-in of the SPEDAS are also developed. The data analysis system for the ERG project would be useful for not only the ERG project but also other geospace missions, and the system should be a heritage for the future geospace mission. In this presentation, we describe current activities of the ERG-Science center and the perspective on the integrated data analysis for the future geospace missions.

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