The integrated data repository-analysis environment developed by ERG Science Center (ERG-SC)

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The Exploration of energization and Radiation in Geospace (ERG) project proceeded to start the full range of observations and research on geospace with the launch of the ERG (Arase) satellite in December, 2016. Over three years since then, the project has engaged in exploration of the solar wind-inner magnetosphere-ionosphere coupled system where various plasma populations interact with each other through cross-energy and cross-regional coupling processes. The ERG Science Center (ERG-SC), established at the very beginning of the ERG project, has played an essential role in managing the data center for scientific data as well as promoting close collaborations in the project team and with other research projects, to maximize scientific outcome for geospace science. To drive scientific activities of the project, ERG-SC developed a data archive where all kinds of scientific data of the project are integrated along in standardized formats, and also developed and released a suite of data analysis codes enabling a seamless access and manipulation of the various data on a unified data analysis tool. A future perspective of ERG-SC is to integrate and further foster the developed scientific resources to serve as an integrated science resource repository in which the data archive supports more software platforms to provide the users with a more ubiquitous environment of data analysis. The data archive and analysis tools should be enhanced to support key functions required for a modern science repository, such as the proper versioning and referencing in a way that meets the global standards, for example, those with digital object identifier (DOI).

