

Project Details

ROSES ID: NRA-00-OSS-01

Selection Year: 2001

Program Element: Independent Investigation: LWS

Project Title:

Development of New-Generation NASA Space Radiation Environment Models

PI Name: Shing Fung

PI Email: shing.f.fung@nasa.gov

Affiliation: NASA/Goddard Space Flight Center

Summary:

We propose to develop a set of new-generation NASA space radiation environment models to support the implementation of NASA Living with a Star (LWS) program and the National Space Weather Program (NSWP). To meet the increasing demands for different data products by distributed users in the diverse space research, space environment effects and engineering communities, a Center for Space Radiation Modeling (CSRM) will be established at the NASA Goddard Space Flight Center. The NASA CSRM will have prime responsibilities in data acquisition and management, and in constructing, validating and disseminating NASA space radiation models. It will interface with other NASA and non-NASA radiation data/models suppliers/users to ensure the long-term usability and accessibility of the data and models. To that end, the NASA CSRM will fully exploit modularized object-orientation technology and standardized data formats to provide a common framework to support both scientific and engineering applications. Functioning like a container cargo dock, distributed users will be able to connect or dock at the CSRM facilities through standardized interfaces designed to receive and distribute information (data and software) and to access a full suite of data display and analysis (modeling) tools. In a network-operating environment, the interfaces will allow existing and upcoming independent systems to function seamlessly as a single one.

Publication References:

no references