Project Details

ROSES ID: NNH19ZDA001N
Selection Year: 2019
Program Element: Focused Science Topic

Topic: Magnetospheric and Ionospheric Processes Responsible for Rapid Geomagnetic Changes

Project Title:
Conductivity model evolution from the practical to the ideal

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Summary:
The goal of this project is to evaluate the techniques for using magnetotelluric data in both practical and ideal settings. System modeling tools, and the needs of the power utility end user, may differ from those of the researcher working at the cutting edge of GIC research. This work will evaluate techniques such as smoothing, averaging, grid spacing, and the algorithms used in magnetotellurics to determine the level of improvement gained by increases in dimensionality, complexity, and local accuracy. If successful, this work will advance the practical solutions needed by power operators towards the eventual scientific-level ideal in ground response to geomagnetic storm conditions.

Publication References:

no references