2012 Workshop: iswa ccmc

Long title
Hands-On CCMC Models and Tools for the Ionosphere
Conveners
Barbara Emery
Nicholas Gross
Maria Kuznetsova
Ja Soon Shim
David Berrios
Description

This will be a very active, hands-on (bring your laptops) 2-hour workshop on getting into Integrated Space Weather Awareness (ISWA) tools and Community Coordinated Modeling Center (CCMC) models and output. The relevant URLs are http://iswa.gsfc.nasa.gov/iswa/iSWA.html and http://ccmc.gsfc.nasa.gov/. We anticipate pairing up disparate partners (so you don't sit with your 'buds'), so that all those without laptops have a partner with a laptop. We will go to CCMC and ISWA sites. For the CCMC, we will use some magneto-hydro-dynamic (MHD) magnetosphere run already completed to play with and examine it for specific characteristics or events. We will also use some ionosphere-thermosphere (IT) model run already completed to do the same thing, and may end by doing a Run on Request of one of the IT models. We will also use the Integrated Space Weather Awareness (ISWA) tool to look at current conditions, and also look at a more exciting past event where we can then answer specific questions. We will encourage students and non-students alike to use these space weather tools for their own education and projects, including theses.

Agenda

0130-0132 Barbara Emery (NCAR) Introduction

0132-0230 Nick Gross (BU) primer for understanding the ionosphere

0230-0240 Ja Soon Shim (U MD/CCMC) instant runs

0240-0300 David Berrios (CCMC) iSWA demo

0300-0320 Nick Gross (BU) iSWA exercise

0320-0330 Masha Kuznetsova (CCMC) runs on request, CCMC student competition

Justification

This workshop idea grew out of the education and outreach day of the 6th biannual Community Coordinated Modeling Center (CCMC) in Key Largo, Florida on January 20, 2012. We would like to introduce the space weather tools in iSWA (integrated Space Weather Analysis) system at http://iswa.gsfc.nasa.gov/iswa/iSWA.html and IT and MAG models in the CCMC at http://ccmc.gsfc.nasa.gov to the community, especially students. The amount of data available, plots and models should help many theses projects, as well as projects of non-students. We would thus like to provide a hands-on opportunity to check out these valuable resources in our community. This workshop fits in with the CEDAR Strategic Plan and System Science in the following ways: There is societal relevance (1.2) in helping students do their theses and in helping researchers do their studies; We are "exploring" the "boundaries", "fusing the knowledge base across the disciplines", and "mining geospace models" (all in 4 of the Plan) with the proposed magnetosphere and ionosphere models of the CCMC; and we are "Managing, mining, and manipulating geoscience data" (4 in the Plan) by looking at the data in iSWA.

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