ENSEMBLE FORECASTING OF SOLAR FLARES

Solar Storms affect the man-made technology in space and on the ground. With the growing dependence on the technology, it is necessary to develop better predictions for the storm conditions. In particular, predicting solar explosive phenomena such as flares and CMEs is of great interest. In this presentation we will review the fundamentals of solar flares and discuss the latest flare forecasting methods. In our discussion, we will focus on four forecasting methods: MAG4, ASSA, ASAP, which are hosted at Community Coordinated Modeling Center (CCMC) located at NASA GSFC, and the NOAA human-generated forecasts. We will explore the idea of providing an ensemble forecast by combining the information from the four flare prediction methods. Using a statistical sample along with a Monte Carlo type algorithm, we illustrate how a probabilistic ensemble prediction that performs better than any of the individual methods alone can be constructed. The implementation of the novel ensemble forecasts in a real-time environment will be discussed as well.

Wednesday, October 1, 2014
4:00pm
106 Hannan Hall
Refreshments will be served at 3:45

Sponsored in part by the Graduate Student Association
For more information, please contact:

Steve Kraemer (202)-319-5315

If you would like to request disability accommodations, please contact Gail Hershey at (202)-319-5315 to make arrangements.