



# SPRING 2013 SEMINAR SERIES

JOINT OEAS / PHYSICS SEMINAR  
3PM – ROOM 200 IN THE OCEANOGRAPHY/PHYSICS BUILDING  
THURSDAY FEBRUARY 7<sup>th</sup>, 2013

**“Will the Earth catch cold when the Sun sneezes?”**

– **Space Weather and Sun-Earth connections.”**

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## ABSTRACT

The near Earth electromagnetic environment is strongly affected by solar activity. During severe solar events such as interplanetary coronal mass ejections, the Earth’s magnetosphere and ionosphere are seriously disturbed and become hostile for millions of satellites. And the strong ground induced current may also destroy the power grid and oil pipelines. Therefore understanding and forecasting the near Earth environment or Space Weather is important for our modern civilization. In this presentation, I will discuss different magnetosphere response modes to different solar activities with global data sets. I will also show the efforts of simulation of these modes with a magnetohydrodynamic (MHD) model Space Weather Modeling Framework which is developed at the University of Michigan.

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