

# **AWSOM AND MARCIE: TRANSITIONING SPACE WEATHER SIMULATION TOOLS TO OPERATIONS**

**Tamas I. Gombosi**

**Gabor Toth, Bart van der Holst, Igor Sokolov, Daniel Welling**

*Department of Atmospheric, Oceanic and Space Sciences  
University of Michigan  
Ann Arbor, MI 48109, U.S.A.*

The Space Weather Modeling Framework (SWMF) has two validated space weather simulation configurations: the Alfvén Wave Solar Model (AWSOM) and the Magnetosphere with Ring Current and Ionospheric Electrodynamics (MARCIE). MARCIE has recently been selected by NOAA’s Space Weather Prediction Center (SWPC) for transitioning to operations.

This talk will describe the basic physics of AWSOM and MARCIE and show validation studies for both model setups. We will also discuss some new scientific results obtained with these models. The talk will conclude with a description of future work and plans for the further developments of SWMF.