

Abstract Submitted  
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**Correlation between propagated solar wind and the response of Jupiter's Magnetosphere observed by Galileo.** YANSHI HUANG, University of Texas, Arlington, KENNETH HANSEN, University of Michigan, Ann Arbor, YUE DENG, University of Texas, Arlington — For the magnetosphere of Jupiter, the internal processes including rapid rotation, strong mass loading from Io, play major roles, however, solar wind driving is also important. We used a one-dimensional simulation of solar wind, with all variables as a function of the radius propagating from Earth out to Jupiter to compare with the measurements from Galileo Magnetometer(MAG). With the limitation in the heliographic longitude that we can model, the simulated solar wind represents the actual solar wind well along the Sun-Earth line, i.e., through those Sun-Earth-Jupiter oppositions. The correlation between changes of dynamic pressure in the solar wind and corresponding changes of magnetic field magnitude, orientation and lag angle observed by Galileo, will help us to understand the role of solar wind forcing on the magnetosphere system. The correlation result shows different responses at different locations in Jupiter's magnetosphere.

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