

Abstract Submitted  
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**Analysis of the Sensitivity of Mars's Neutral Atmosphere in Response to Solar Input** MATTHEW BURTON, Eastern Michigan Univ — NASA's MAVEN mission has been studying the upper atmosphere of Mars and its evolution for the past two years. The focus of this research is on using MAVEN data to better understand how solar activity affects the atmospheric density. Solar input is thought to be the primary driver of the variation in the upper atmosphere. However, with locally dependent variation due to day/night effects, lower atmospheric driving, and other phenomena, we are interested in what time periods the solar input does, in fact, have the strongest effect. We present initial results which show there are time periods when a strong correlation between solar input and density exists but there were also many time periods with no correlation, indicating something else was the primary driver of density variation.

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