



Space Weather at Mars

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Mars, a planet with weak intrinsic magnetic field, is subject to strong space weather effects. Mars has a rather tenuous atmosphere, a surface pressure $\sim 1/100$ of that of the Earth, and a gravitational pull about half of that of the Earth. This makes the present Martian atmosphere particularly exposed to solar variability effects, a "stratosphere" and upper atmosphere strongly coupled to the solar wind. A surface illuminated by a variable UV-input and high fluxes of cosmic rays - of galactic as well as solar origin. In this report I will focus on some particular aspects of the Space Weather at Mars, such as the long-term evolution of the atmosphere and what effects the solar variability might have on a planet lacking a sufficiently strong "magnetic shield".