

Smithsonian Air and Space Museum hosts space weather panel

October 26, 2016

The Smithsonian National Air and Space Museum hosted a panel on October 25 to discuss advances in space weather research and forecasting. The panel highlighted NASA's STEREO program, which uses two orbiting satellite probes to produce a three-dimensional image of the sun. The program is celebrating its tenth anniversary this year.

At the panel event, NASA scientists explained how detailed images of the sun can help us determine the habitability of other planets and prepare for potentially hazardous space weather events on Earth.

According to panelists, images of coronal mass ejections, or explosions of plasma from the sun's surface that originate from magnetic field disturbances, can be used to determine the habitability of planets. The more exposure a planet has to coronal mass ejections, the less habitable it is because of the increase in harmful cosmic radiation, which has been linked to cancer. One panelist outlined the risks this radiation could pose to astronauts traveling to Mars, which has a much thinner atmosphere than Earth and it is more vulnerable to cosmic radiation.

Additionally, data from the STEREO program could be used in the future to provide real-time space weather forecasts by monitoring sunspots, which indicate magnetic anomalies.

Sources: National Aeronautics and Space Administration, Smithsonian National Air and Space Museum
