Helioseismic and Magnetic Imager for the Solar Dynamics Observatory

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The primary goal of the Helioseismic and Magnetic Imager (HMI) investigation is to study the origin of solar variability and to characterize and understand the Sun's interior and the various components of magnetic activity. The HMI instrument is part of the Living With a Star (LWS) Solar Dynamics Observatory (SDO). HMI determines the motion of the solar photosphere to study solar oscillations and measures the polarization in a spectral line to study all three components of the photospheric magnetic field. This presentation gives an overview of the science goals, the instrument and its expected performance, the science products produced, and the ways in which the science community and public will be able to use HMI data.