

Hinode: A Premiere Solar Physics Observatory Resulting from NASA-JAXA Cooperation

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Hinode is the second JAXA and NASA partnership for solar astrophysics. Institutions funded by both agencies contribute instrumentation, mission operations, and science data analysis. In each step in the process of executing this mission, JAXA and NASA jointly convert science goals to instrumentation performance requirements to instrument-collected data. The result is the premier solar physics observatory in the last decade. Hinode has observed the formation of polar X-ray jets at a resolution sufficient to address theoretical predictions for magnetic reconnection. Measurements of the polar magnetic field by Hinode have discovered the existence of 'patches' of concentrated field, revealing a latitudinal dependence of the polarity reversal that accompanies the progression of the solar cycle. Observations of flares, Coronal Mass Ejections and the acceleration regions of the fast and slow solar wind being used to develop next-generation models for space weather. We will discuss the partnership and provide an overview of the last seven years of observatory success.

キーワード: Hinode, NASA-JAXA coordination, solar physics, space weather, solar cycle

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