Project Details

ROSES ID: NNH09ZDA001N
Selection Year: 2010
Program Element: Data, Tools, & Methods

Project Title:
Fast Processing of Spherical Seismic Holography

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Summary:
We propose to provide

(Deliverable:) a software research utility that will run computations for helioseismic holography in a spherical environment. The code will take advantage of modern parallel-processing facilities to run the computations a hundred or more times faster than the serial codes that have been used for spherical holography heretofore. The primary object of the utility will be seismic diagnostics of flows in the deep convection zone. The utility will also include the facility for rapid computations of seismic images for the HMI far-side seismic monitor.

(Delivery Site:) The Joint Operations Science Center (JSOC) for the Solar Dynamics Observatory (SDO) at Stanford University, Stanford, California.

(Schedule:) The utility will be delivered in two instalments. The far-side imaging component will be delivered to the JSOC and implemented into the HMI far-side synoptic monitor at the beginning of the second year of the contract, on November 1, 2011. The near-side component will be delivered and implemented into the HMI data-analysis pipeline three months before the end of the second year of the contract, on August 1, 2012.

Publication References:

no references