

STEREO Heliospheric Imager Team: 2020 Group Achievement Award

The 2020 Group Achievement Award for achievement by a large consortium in geophysics is awarded to the STEREO Heliospheric Imager team.

The Heliospheric Imager instruments, on board the twin NASA Solar Terrestrial Relations Observatory (STEREO) spacecraft, have given an entirely new perspective on the heliosphere and space weather. Launched in 2006, STEREO consists of a pair of identical spacecrafts orbiting the Sun, each moving slightly faster or slower than the Earth, resulting in a unique stereoscopic view.

The Heliospheric Imagers are part of the SECCHI imaging package and capture the faint solar light scattered from density enhancements in the solar wind, coronal mass ejections and other heliospheric disturbances, revealing complex messy structures.

Among the spectacular observations and scientific “firsts” is the stereoscopic imaging of a coronal mass ejection impacting the Earth, the imaging of faint emission associated with corotating interaction regions in the solar wind, and the disconnection of a comet's tail as it interacted with a coronal mass ejection.

The Heliospheric Imager team (see the full list below) is led by PI Professor Richard Harrison at the Rutherford Appleton Laboratory, and has produced over 300 refereed papers, 15 PhD theses from the UK and Ireland, and an active citizen science project for solar storm detection. The Heliospheric Imager team have provided outstanding service by contributing tools, assistance and bespoke data products to facilitate rapid scientific progress, with their vital space-weather data and expertise in great demand.

For these reasons, the STEREO Heliospheric Imager team is awarded the Royal Astronomical Society's Group Award.

Short citation

The Heliospheric Imager instruments, on board the twin NASA Solar Terrestrial Relations Observatory (STEREO) spacecraft, have given an entirely new perspective on the heliosphere and space weather. Their scientific achievements are extensive, including the first stereoscopic imaging of a coronal mass ejection impacting the Earth, revealing the complex structure of the solar wind, and imaging the disconnection of a comet's tail due to a coronal mass ejection.

The Heliospheric Imager team have provided outstanding service by contributing tools, assistance and bespoke data products to facilitate rapid scientific progress, with their vital space-weather data and expertise in great demand.

Current members of the STEREO Heliospheric Imager Operations Team

Principal Investigator – Professor Richard Harrison (Rutherford Appleton Laboratory - RAL)

Project Scientist – Dr Jackie Davies (RAL)

Instrument Manager – Dr Chris Eyles (RAL / University of Birmingham)

Data/Calibration Scientist – Dr James Tappin (RAL)
Support Scientist – Dr David Barnes (RAL)
Data/Software Manager – Steve Crothers (RAL)
UKSSDC Manager – Matthew Wild (RAL)

Former members of the STEREO Heliospheric Imager Operations Team

Professor Chris Scott (University of Reading)
Dr Danielle Bewsher (University of Central Lancashire)
Dr Dan Brown (University of Central Lancashire)