Jenny
Knuth
SWx TREC, University of Colorado, Boulder
Greg Lucas, SWx TREC University of Colorado Boulder
Thomas Berger, SWx TREC University of Colorado Boulder
Christopher Pankratz, SWx TREC University of Colorado Boulder
Poster
Investigating a space weather event’s impacts across the heliosphere requires finding and comparing diverse observational data products and models from multiple data repositories and learning each repository's unique organizational structure.

SWx TREC’s Space Weather Data Portal at https://lasp.colorado.edu/space-weather-portal is a tool that does this work for you by correlating diverse space weather data by date. The Portal organizes data held in disparate repositories by the date range of an event and then requests the selected data from the data's source, in real time, for display and downloading. This makes it easy to trace a solar event as it travels from the Sun to the Earth.

The reusable data catalog underlying the Portal makes it easy to present different collections of space weather data for different applications. For example, space weather now can be viewed at https://lasp.colorado.edu/space-weather-portal/now. Models such as Dst Live (swx-trec.com/dst) , MSIS (swx-trec.com/msis) , and Enlil (swx-trec.com/h3lioviz) can use data from the Portal catalog as inputs as well as to visualize observed data alongside predicted data.

The ability to quickly correlate diverse space weather data by event is essential to advancing space weather science. The SWx TREC Space Weather Data Portal is an example of a nimble, evolving technology that can bring together data on an axis of interest. In the case of space weather data, organizing the data by event makes it quick and easy to discover, display, and download relevant space weather data.



Poster PDF
Knuth-Jenny.pdf
Meeting homepage
Space Weather Workshop 2023
Download to PDF