Heather
Elliott
Southwest Research Institute
C. Nickolos Arge, Heliophysics Science Division, NASA GSFC, Greenbelt, MD,
Carl. J. Henney, Air Force Research Laboratory, Space Vehicles Directorate, Kirtland AFB, NM
Maher A. Dayeh, Southwest Research Institute, San Antonio, TX
Joerg-Micha Jahn, Southwest Research Institute, San Antonio, TX
Craig E. DeForest, Southwest Research Institute, Boulder CO
Poster
The solar wind density, temperature, and the interplanetary magnetic field strength all correlate well with the solar wind speed. By combining these relationships Wang-Sheeley-Arge (WSA) corrected speed forecasts, we can produce multiday forecasts of the solar wind density, temperature, interplanetary field strength, and the Kp geophysical index. First, we quantify how well these relationships can work using solar wind speed observations from near Earth in the OMNI data. This establishes a baseline empirical model for all of the solar wind and IMF parameters. We assess how well the relationships perform at forecasting density, temperature, field strength and Kp index when using multiday WSA speed forecast relative to when using the measured speeds.
Poster PDF
elliot-heather-poster.pdf
Meeting homepage
Punch 5 Science Meeting
Download Abstract