Abstract Details

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Title: (IWG3D) Statistic and Analysis of Radio Occultation Data Processing Results at the Shanghai Astronomical Observatory (SHAO)

Abstract:
With the development of the Global Positioning System (GPS) satellite network, an opportunity now exists to acquire valuable new temperature, pressure, and humidity data using radio occultation. This paper gives an overview of the Radio Occultation Data Processing at the Shanghai Astronomical Observatory (SHAO). More than 4000 CHAMP neutral atmosphere soundings has been processed at SHAO in the period august 1st, 2002 to august 30th, 2002. The retrieved atmospheric profiles from CHAMP data were compared with the European Centre for Medium-range Weather Forecasts (ECMWF) analysis data and radiosonde data. This paper presents the statistic and analysis the result of comparisons and discusses some conclusions regarding the data quality of CHAMP radio occultation data drawn from these. These results indicate well the potential of GPS occultation data to become an extremely valuable data source for the numerical weather prediction (NWP) and long-term monitoring of the earth's climate.

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