

## Dr. Hui Shao

Project Scientist

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Dr. Shao is currently leading the Unified Forward Operator (UFO) development, including operators for GNSSRO and other satellite data, at the Joint Center for Satellite Data Assimilation (JCSDA). With 14 years of experience working on data assimilation, Dr. Shao has played a critical role in support of the NOAA data assimilation systems and its transitions between research and operations. She is physically located at the NOAA campus and working with NOAA colleagues, developing new capabilities for GNSSRO data assimilations and operational implementations. She is also leading a team effort to develop the next generation data assimilation capabilities as part of the Joint Effort for Data Assimilation Integration (JEDI), which currently includes operational forward operator capabilities for GNSSRO from multiple operational agencies, including NOAA, NRL, UKMet Office, and ECMWF. Before joining the JCSDA in 2017, she was working at the Developmental Testbed Center (DTC) as the data assimilation project lead and liaison between the DTC and NCEP/EMC. The NCEP Global Data Assimilation System (GDAS) was supported under her lead for both operational and research communities.

Dr. Shao's research interest includes GNSS RO and ground data assimilation. She helped implement and maintain the NCEP operational implementations for satellite data, including those from COSMIC-2, Metop-C, PAZ, and commercial GNSSRO missions.

### Work Experience:

- 2017 – present Joint Center for Satellite Data Assimilation (JCSDA)/University Cooperation for Atmospheric Study  
Project lead for the New and Improved Observations (NIO) and UFO
- 2009- 2017 Developmental Testbed Center (DTC)/National Center for Atmospheric Research (NCAR)  
Data assimilation Team Lead
- 2006-2009 Research Applications Laboratory, NCAR

### Education:

- 2005 Ph.D. in Meteorology, Florida State University, U.S.
- 1998 M. Sc in Atmospheric Science, Nanjing University, China
- 1995 B. Sc in Atmospheric Science, Nanjing University, China