Position title: Research Associate Professor
Job type: Full-time, 12-month
Salary range: Commensurate with education and experience
Closing date: September 15, 2011

Research Associate Professor

George Mason University, College of Science (COS) invites applicants for a full-time Research Associate Professor.

The Position

The successful candidate will lead research in satellite reprocessing in support of NOAA Climate Data Records (CDRs) and reanalysis and coordinate the Federal employee at the Center for Satellite Applications and Research (STAR) of the National Environmental Satellite, Data and Information Service (NESDIS) in NOAA. There are three aspects of research as follows:

1) To generate consistent Stratospheric Sounding Unit (SSU) and Advanced Microwave Sounding Unit-A (AMSU-A) radiance Sensor Data Records (SDRs) and merged SSU/AMSU-A Thematic Climate Data Records (TCDRs) and to work on bias corrections to reduce inter-satellite biases. Limb-corrections, instrument CO_2 leaking corrections, atmospheric CO_2 concentration corrections, diurnal sampling corrections, and statistical merging on SSU have already been completed in previous project years. Work will be focusing on SSU and AMSU-A merging.
2) To validate against GPSRO data. The recalibrated/merged AMSU/SSU stratospheric channels will be compared to the GPSRO observations for an error and stability assessment.
3) To explore research and development for advanced satellite products and applications

Key Responsibilities Include:

1) Generating original multi-year 1B data for observations from AMSU, SSU, and GPSRO/COSMIC;

(2) Processing codes to generate 1C radiance datasets from the above 1B files;

(3) Working on Radiative transfer codes for SSU with CO_2 cell pressure correction;

(4) Reprocessing/recalibrating AMSU/SSU atmospheric temperature TCDR datasets

(5) Writing semi-annual report describing the results

Skills, Experience & Abilities

- Applicants should have a PhD in Atmospheric Science with at least five years professional experience in atmospheric radiative transfer and satellite data processing.
- Skillfully use all statistical methods in satellite analysis
- Understand most kinds of satellite datasets
- Proficiency in computer programming in super computer with UNIX system
- Strong written and verbal communication skills
- Capability of leading a research team and instructing student research

Questions about this position may be addressed to Dr. John Qu, at jqu@gmu.edu.
Review of applications will begin September 1, 2011 and continue until filled.