The National Center for Atmospheric Research (NCAR) is currently seeking applicants for two Postdoctoral Researchers for the NCAR Data Assimilation (DA) Program. NCAR is a research institution located in Boulder, Colorado, operated by the nonprofit University Corporation for Atmospheric Research (UCAR) under sponsorship of the National Science Foundation (NSF).

The deadline for applications to the program is January 4, 2016. Applications will be reviewed by the NCAR Data Assimilation Team, with hiring decisions announced by in March 2016. An early fall 2016 start date is anticipated, but earlier or later arrivals may be accommodated.

The DA Program (da.ucar.edu) provides a focal point for the wide range of data-assimilation research and development at NCAR. We seek postdocs interested in innovative data-assimilation research.

Postdoctoral researchers in the Program work on projects jointly with an NCAR Laboratory or externally funded activity, and are co-sponsored equally with that Laboratory or activity. Potential projects are:

1. Assimilation of observed magnetic fields and flow fields into a magnetohydrodynamic solar dynamo model in order to forecast solar magnetic activity, including the strength and duration of future solar cycles.
2. Assimilation of current and planned satellite observations of methane for emissions estimation. This project will develop capabilities for assimilating satellite methane observations (e.g., GOSAT and TROPOMI) and estimating source emissions in the DART framework with the CAM-chem and WRF-Chem models.
3. Assimilation for short-term, high-resolution forecasts of severe storms. Research may center on ensemble data assimilation for multiple spatial scales, comparison of ensemble Kalman filter and ensemble-variational ("EnVar") techniques or diagnosing forecast-model error as part of the assimilation cycle.
4. Development, implementation and evaluation of radar data quality control algorithms for general use by data assimilation systems at NCAR and in the community.
5. Assimilation of both satellite- and ground-based measurements of cloud and precipitation with a one-dimensional variational data assimilation scheme, with an emphasis on deep convection and heavy-rain events. Direct assimilation of radiances will be compared, contrasted, and possibly combined with assimilation of retrievals.

Applicants should indicate their interest in one or more of these projects (see "How to apply").

Qualifications

An applicant must have received a PhD or equivalent degree in atmospheric science, oceanography, hydrology, mathematics, statistics or a related area as of January 2011 or later, or must be able to complete such a degree and finish all thesis revisions and defense before starting

the appointment. Applications from women and minorities are encouraged. Successful foreign applications will be contingent on visa and security requirements.

Primary criteria used in the selection of postdoctoral researchers will be the applicant's scientific capability and potential for data-assimilation research.

Compensation and Benefits

Successful applicants currently receive a salary of $62,000 in the first year, and $63,500 in the second year. Salaries are adjusted annually in October based on surveys of like institutions. All appointees are eligible for life and health insurance, and participate in a TIAA/CREF retirement plan. Travel expenses to NCAR will be reimbursed according to UCAR relocation guidelines up to a maximum of $2,500 total for the applicant and his or her family. Scientific travel up to a maximum of $2,000/year is available from the DA Program, with potentially an equal amount available from the co-sponsoring Laboratory or activity.

Appointments are for two years and may be extended to a third year if mutually agreeable.

How to Apply

Please note that there are two separate steps as part of this application process:

Step 1:

First, you must apply on the UCAR Career portal at http://ucarcareers.silkroad.com/

The position title is "NCAR Data Assimilation 2016 Postdoctoral Researcher"

At the start of the application process within the UCAR Career Portal you will be given an option of how you would like to proceed. Please select the first choice "upload a resume/CV document."

The "resume/CV document" that you upload must include these 3 components, in this order, combined as a single PDF document:

> a) Cover letter, addressed to the NCAR DA Team, that specifies which of the potential projects (1-5, above) you would be interested in working on.

> b) Statement of research interests in data assimilation (no more than two pages). We are interested to know what questions in data assimilation you find interesting and important, and why, as well how you think progress could be made.

> c) Curriculum Vita

Continue with the application process steps which include:

> i. Name and contact information

> ii. Your eligibility to work in the United States

> iii. Voluntary demographic information

> iv. Employment application information including work history

Step 2:

As part of the application process, we ask for letters of recommendation from three references, with a deadline of January 11, 2016 for receiving those letters.

You must visit The NCAR DA Program website at http://www.da.ucar.edu/ to enter the names and emails of three references who can provide letters of recommendation for you. The website will automatically send an email requesting a letter of recommendation to the reference's email address that you entered into the webpage. (The email is sent immediately after you click 'submit reference').

The email will inform the reference of the position you have applied for and the confidentiality of the recommendation letter that they are being asked to submit by the deadline of January 11, 2016. You will receive notice from dapostdocletters@ucar.edu when each of your references has successfully submitted a letter on your behalf. **It is extremely important that you enter the contact information for your references as soon as possible so that they will have time to write and upload the letter before the deadline!**