

Postdoctoral Researcher

Tracking Code

17042

Job Description

Postdoctoral Researcher

This is a full-time, 2-year term position with possibility of an extension. Initial consideration will be given to applications received prior to 4 pm on December 16th. Thereafter, applications will be reviewed on an as-needed basis.

NCAR – Climate & Global Dynamics (CGD) – Terrestrial Sciences (TSS) – Integrated Assessment Modeling (IAM)

Partial relocation costs paid per UCAR's relocation policy.

UCAR/NCAR will sponsor a work visa to fill this position.

Where You Will Work

The successful applicant will join an interdisciplinary research group that includes both social and natural scientists working on the climate change issue (see <https://www2.cgd.ucar.edu/sections/tss/iam>). The group has an organizational home within the Climate and Global Dynamics Laboratory (CGD) which carries out research on climate and land cover change. The group develops and applies new socio-economic models, and linkages to climate models, that leverage NCAR's status as a world-leading climate modeling center.

What You Will Do

Develop and apply spatial models of land use change at the US and global scale with a focus on agriculture to address questions related to the two-way influences between land use change and climate. Analyze and employ historical land use and land cover data, including crop-specific changes in agricultural land use, to calibrate and validate existing statistical models of land use change. Plan and carry out spatial model development on the basis of evaluation results. Interact with integrated assessment modelers at NCAR and externally to link spatial land use outcomes to aggregate national projections of agricultural land use, spatial demographic change, and land management assumptions. Interact with impact modelers, including those employing the NCAR Community Land Model (CLM), to incorporate land use change in analyses of climate effects on agriculture, energy, land, and water.

- Evaluate and further develop spatial statistical land use models at the US and global scale to produce scenarios of future land use change. Obtain, analyze, and employ spatial land use data in model evaluation and development.
- Interact with other researchers to link spatial land use models to integrated assessment and impact models.

- Apply land use models to interdisciplinary analyses of climate change impacts.
- Publish results in the peer-reviewed scientific literature.
- Present results at conferences and seminars.

Decision Making & Problem Solving:

- Decides on most effective research strategies and on most effective ways to articulate scientific results.

What You Need

- Ph.D. in geography, environmental sciences, agricultural economics, or related field.
- Expertise in spatial land use data and modeling at regional to global scales, especially related to agricultural land use.
- Experience with spatial statistical approaches to land use modeling.
- Strong written and oral communication skills, especially for scientific publications.
- Proficiency in scientific programming in a suitable language (e.g. R, Python, Matlab) and familiarity with Fortran.
- Experience working in a UNIX environment, and with geographic information systems, is desirable.
- Ability to work both independently and collaboratively with an interdisciplinary research group.

Desired Skills

- Experience in land use modeling at spatial and national level is highly desirable.

Notes to Applicants

All candidates must provide the following:

- Cover Letter
- CV
- Statement of Research Interests
- Names & Contact Information for 2-3 References

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Whatever your intersection of identities, you are welcome at the University Corporation for Atmospheric Research (UCAR). We are committed to inclusivity and promoting an equitable environment that values and respects the uniqueness of all members of our organization.

Job Location

Boulder, Colorado, United States

Position Type

Full-Time/Regular

Appointment Type

Term Full-Time (T1)