Postdoctoral positions in statistics, University of Chicago, Department of Statistics

The Department of Statistics at the University of Chicago invites applications for two postdoctoral positions with Professor Michael Stein as the primary mentor through STATMOS (Statistics in the Atmospheric and Oceanic Sciences), an NSF-funded network, which emphasizes interdisciplinary and multi-institution research. For more information, including a list of participating institutions, see http://www.statmos.washington.edu/

**Position 1:** This position is joint with RDCEP (Robust Decision Making on Climate and Energy Policy), an NSF-funded center that brings together researchers from a wide range of disciplines to improve the computational models used to evaluate climate and energy policy, see www.rdcep.org. In collaboration with PI Elisabeth Moyer (Geophysical Sciences, University of Chicago) and others, we are particularly interested in statistical emulation of climate model output and the simulation of actual future climates for use in policy analysis. Potential research topics include: the use of spatial statistics for grid-scale emulation; statistical climate model intercomparisons; the combination of model and reanalysis output for improved climate projections of surface temperature and precipitation at the daily time scale; and the characterization and comparison of space-time variability in climate and in climate model output. This position is available for a starting date as early as February 1, 2014.

Substantial computing resources are provided through the U. Chicago/Argonne Computation Institute.

Applicants should have experience in applications of statistics to atmospheric or oceanic science. A PhD in Statistics, Biostatistics, or a PhD in Geosciences with a strong statistical background is required. Strong collaborative skills are highly desirable.

**Position 2:** This position will be jointly funded through a grant from the US Department of Energy with PI Mihai Anitescu (Department of Statistics, University of Chicago and Mathematics and Computer Science Division, Argonne National Laboratory). The focus for this position is computational challenges in working with large spatial-temporal datasets with applications to climatology and meteorology among other areas. Specific possible projects include computation of exact and approximate likelihoods for Gaussian processes with unstructured covariance matrices, non-Gaussian process models for spatial-temporal data and spectral methods for nonstationary processes.

Applicants should have experience in applications of statistics or computational mathematics to the physical sciences. A PhD in Statistics, Applied Mathematics or a closely related field is required. Experience in programming and manipulation of large datasets is required. Desired starting date of September 1, 2014.

This one posting will be used to hire for both positions. STATMOS postdocs spend time at more than one institution within the STATMOS network, which includes Argonne National Laboratory, located in the suburbs of Chicago. For Position 2, Argonne will serve as the second institution, but for Position 1, other members of the STATMOS network, which includes many universities as well as NCAR, could also be the site of an extended visit.

Postdoctoral appointments are renewable annually but expected duration would be at least two years.

To apply, email a CV, statement of research interests, and names and contact information for at least two references to Michael Stein (stein@galton.uchicago.edu). Indicate position (possibly both) in which you are interested. Applications accepted until both positions are filled. The University of Chicago is an equal opportunity/affirmative action employer.