

A post-doctoral position in ecological forecasting is available in the Dietze lab in the Department of Earth and Environment at Boston University. This project will focus on expanding the capacity of our current carbon cycle forecast to a larger network of sites and bringing in additional data constraints into our data assimilation system.

This system covers sites across North America, with an emphasis on NEON and Ameriflux sites, and multiple timescales including decadal hindcasts, short-term forecasts (35 days), seasonal forecasts (9 mo), and multidecadal projections (CMIP scenarios). Data constraints to be added will include a subset of the following, depending on the expertise and interests of the candidate: eddy covariance, lidar (NASA GEDI), soil carbon, soil moisture and vegetation optical depth (microwave remote sensing, e.g. NASA SMAP), vegetation inventory data, remotely-sensed land-use & disturbance (e.g. MODIS, Landsat), solar induced fluorescence, thermal remote sensing. This postdoc may also contribute to the design and implementation of new data assimilation algorithms focused on capturing environmental disturbances and land use / land management within the forecast system. Modeling frameworks will include SIPNET (simple carbon budget model) and ED2 and/or LPJ-GUESS (more complex cohort-based models). Research questions focus on assessing the predictability of the terrestrial carbon cycle, drivers of spatiotemporal variability, and the impacts of disturbance & land management on carbon cycle projections and reanalyses. The project will make use of, and contribute to, the ecoinformatic tools being developed by the PEcAn project (<http://pecanproject.org>), which aims to make ecosystem models, data assimilation, and forecasting more accessible, automated, and repeatable.

Qualifications:

Minimum qualifications are a doctoral degree in a related ecological or environmental science. Experience with at least two of the following is preferred: R, Bayesian statistics, ecosystem modeling, remote sensing. Salary is commensurate with experience and qualifications. Applications will be considered on a rolling basis. 12 month contract with the possibility of renewal subject to the availability of funds.

To apply please submit a cover letter, CV, and contact info for 3 references to Dr. Michael Dietze (dietze@bu.edu). Feel free to contact Prof. Dietze if you have additional questions .

Boston University is an Equal Opportunity/Affirmative Action Employer.