Postdoctoral Fellowship in Dryland Spatial Self-organization

Department of Environmental Science and Policy, UC Davis

Application deadline: Review of applications will begin immediately and continue until the position is filled.

Description: The project focuses on modeling the spatial self-organization and vegetation pattern formation in drylands, taking into consideration the species interaction between biological soil crusts and vascular plants. The successful applicant will provide a key ecologically modeling expertise to a multi-partner research initiative funded by NSF and the UC Davis-Israel Collaborations in Research. Specifically, they will

- Develop process-based models to investigate mechanisms of spatial patterns of vegetation-biocrust spatial patterns along the environmental gradient of the U.S. Southwest.
- Process regional and global geo-spatial data describing the landscape vegetation spatial patterns.
- Integrate model predictions with spatial data at various spatial resolutions and scales.

The research will be conducted under the supervision of Xiaoli Dong in the Department of Environmental Science and Policy at UC Davis (for more information regarding Dr. Dong's Research Group, please see https://xdong05.github.io) with interactions with a broader supervisory group, including Dr. Yufang Jin (UC Davis), Dr. Rachata Muneepeerakul (University of Florida), Dr. Yu Zhang (Los Alamos National Laboratory), Dr. Coraline Havrilla (Colorado State University), Dr. Giora Kidron (Hebrew University of Jerusalem), and Dr. Moshe Herzberg (Ben-Gurion University of the Negev).

This is a one-year position with potential of renewal for another year depending on performance. The annual salary ranges between $60,000 and $71,952, depending on level of experience. The position is available immediately, with a flexible starting date. Additional funding is available to support research-related travel.

Required experience and qualifications:

- A strong background in ecological modeling. Candidates with experience of ecohydrological modeling or modeling of ecosystem spatial self-organization are strongly encouraged to apply.
- A broad interest in ecological theories.
- An exceptional skill to process large-scale geospatial datasets.

Application Instructions: Applications will be accepted by email. To apply, please submit the following items as one single PDF file to Xiaoli Dong (xldong@ucdavis.edu):

1. A cover letter that outlines your qualifications and experience, interest in this position, and available start date.
2. An up-to-date CV that includes contact information for three referees.
3. Up to three examples of representative research publications.