POSTDOC POSITION in ocean ecology (satellite algorithms and climate models), University of Pennsylvania

The University of Pennsylvania's Department of Earth and Environmental Science invites applications for a postdoctoral researcher with Dr. Irina Marinov. The postdoctoral researcher will be co-advised by Dr. Marinov (http://climate.sas.upenn.edu) and by Dr. Tihomir Kostadinov (based at the California State University San Marcos, tkostadinov@csusm.edu) and will work on a NASA-funded project to improve ocean color satellite algorithms for the retrieval of the particle size distribution (PSD) and phytoplankton functional types (PFT), merge multiple ocean color sensors' data into a seamless PSD and PFT data sets, and investigate interannual variability (relationships to ENSO, etc.) in both the ocean color data sets and the next generation (CMIP6) IPCC-class climate models. Opportunity exists to collaborate with other researchers, nationally and internationally.

Ideal qualifications: A Ph.D. degree (completed by the time of appointment) in an optical remote sensing and/or modelling/theory of Earth systems discipline. Expertise in ocean color remote sensing/marine bio-optics and/or ocean ecology and biogeochemistry modeling ideal. Other expertise fields to be considered include: oceanography, climate and atmospheric sciences, marine biogeochemistry, theoretical phytoplankton ecosystem ecology and photobiology. Ph.D. holders in other quantitative disciplines will also be considered and are encouraged to apply, in particular physics of electromagnetic waves and their interaction with matter (scattering and absorption), electrical engineering, signal processing, astronomy with focus on optical spectroscopy, and other disciplines that make use of spectral analyses, scientific computing and statistics.

Technical skills required: Advanced scientific programming skills (MATLAB®, python, R, or similar languages), statistical analyses skills (signal processing, regressions), data processing, analysis and visualization of multi-dimensional large data sets, ability to deal with large model data sets. Strong quantitative skills, attention to detail, and ability to work with multiple PI's synergistically.
Ideal skills: familiarity with spectral analysis of multispectral optical data from passive remote sensing instruments & in-situ bio-optical data sets, familiarity with netCDF, HDF and similar file formats. Statistical skills such as uncertainty propagation analyses, Monte Carlo, etc.
Location: The postdoctoral researcher will be an employee of the University of Pennsylvania, and will be based in Philadelphia in the Earth & Environmental Science Dept (https://climate.sas.upenn.edu/). The researcher will make visits to California State University San Marcos for training and coordination of collaboration with Dr. Kostadinov. Position guaranteed for one year, with annual possibility of renewal contingent upon satisfactory performance. We will begin reviewing applications immediately, and continue until the position is filled. Immediate start date preferred. Salary commensurate with experience, with standard University benefits offered. International applicants accepted.

Applicants are asked to send a curriculum vitae, a statement of research experience and interests, publications, transcripts, and the names and contact information (phone, e-mail and address) of at least three references to Irina Marinov (imarinov@sas.upenn.edu). Dr. Marinov will be at the CMIP6 and AGU meetings in Washington DC, 8-14 Dec 2018 and can meet in person with anyone interested.