Radost Stanimirova

Contact Information

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Research Interests

Climate variability and human transformation of the landscape, especially through agriculture.

Education

Boston University, Boston, Massachusetts, USA

Ph.D., Geography, (expected graduation date: August 2019)
Dissertation Title: *Dynamics of Global Pasturelands: Modeling Vulnerabilities and Monitoring Impacts from Humans and Climate Variability*

Barnard College of Columbia University, New York, New York, USA

B.A., Environmental Science, May 2012
Minors: Anthropology
Senior Thesis: *Organic Carbon Transport through Holocene and Pleistocene Sediment in Southeast Asia: Implications for Arsenic Mobilization*

Academic Experience

Department of Earth and Environment
Boston University, Boston, Massachusetts, USA

Graduate Research Assistant **January 2015 - Present**

- Develop a novel methodology to map continuous fields of bare ground, grass, and woody cover in South America using 20+ years of Landsat observations
- Create an empirical model quantifying spatially explicit sensitivity of global pasturelands to both short- and long-term climate variations
- Compare and interpret spring phenology estimated from two methods, TIMESAT and MODIS Land Cover Dynamics Product (MCD12Q2)

International Research Institute for Climate and Society, Earth Institute
Columbia University, New York, New York, USA

Research Staff Assistant **June 2012 - July 2014**

- Conducted research to support a variety of climate risk management implementation projects relating to remote sensing, agriculture and index insurance
- Wrote 5 effective grant proposals and budgets for donor organizations including World Bank, World Food Programme and NASA
- Prepared 6 interim and final narrative reports per funders requirements
- Facilitated 4 in-region capacity building workshops in English and Spanish

Department of Environmental Sciences
Barnard College of Columbia University, New York, New York, USA

Research Assistant **June 2010 - May 2012**

- Investigated the role of geochemistry in arsenic contamination of groundwater in Bangladesh and authored a 40 page thesis paper
- Developed a procedure for column experiments on sediment cores in collaboration with research mentor and a team of graduate students
- Executed laboratory experiments, performed detailed laboratory tasks, collected and analyzed data and conducted literature research

School for Field Studies, Atenas, Costa Rica

Research Assistant **January 2011 - May 2011**

- Performed a directed research project that utilized statistical and field research techniques
- Authored a 30 page research paper on the relationship between soil coverage and soil carbon sequestration on traditional and sustainable coffee plantations
- Collected field samples in order to determine if organic agroforestry systems are an appropriate strategy for reduction of emissions by deforestation and degradation

Honors and Awards

NASA Earth and Space Science Fellowship, 2017-present ($30,000/year)
Young Scientists Summer Program, International Institute for Applied Systems Analysis, Austria, Summer 2017 ($6,000)
Graduate Summer Fellowship, Frederick S. Pardee Center for the Study of the Longer-Range Future, Boston University, Summer 2016 ($6,000)
Biogeoscience Symposium Outstanding Elevator Pitch Award, Boston University, 2016
Dean's Fellowship, GRS Graduate Fellowship, Boston University, Spring 2015 ($10,250)
The Lillian Berle Dare Prize for advanced study in Geography, Barnard College, 2012 ($500)
Hughes Science Pipeline Project, Barnard College, 2010-2011 ($3,000)

Journal Publications

Stanimirova, R., P. Arevalo, R. K. Kaufmann, V. Maus, M. Lesiv, P. Havlik, & M. Friedl (2018 in preparation) Modeling sensitivity of global pasturelands to climate variability and human management. Global Ecology and Biogeography

Stanimirova, R., Z. Cai, E. Melaas, J. Gray, L. Eklundh, P. Jonsson, & M. Friedl (2018 in preparation) An Empirical Assessment of the MODIS Land Cover Dynamics and TIMESAT Land Surface Phenology Algorithms. Institute of Electrical and Electronics Engineers

Vasilaky, K., S. Martinez, **R. Stanimirova**, & D.E. Osgood (2018 in review) First Three Then Me: Group Heterogeneity and the Demand for Index Insurance. Journal of Economic Behavior and Organization

Conference Presentations and Workshops

American Geophysical Union (AGU) - "Mapping Continuous Fields of Bare Ground, Grass, and Woody Cover in the Southern Cone of South America using Landsat," Poster Presentation, Washington DC, December 2018

NASA Land Cover/Land Use Change Science Meeting - "Modeling the dynamics of global pasturelands to climate variability and human impact," Poster Presentation, Gaithersburg, MD, April 2018

Natural Capital Symposium - "Earth Observations for Ecosystem Services," Stanford University, Stanford, CA, March 2018 (**Invited**)

Global Food+ Symposium - "Modeling and monitoring global rangeland dynamics," Oral Presentation, Tufts University, Boston, MA, February 2018 (**Invited**)

American Geophysical Union (AGU) - "Modeling sensitivity of global pasturelands to climate variability and human management," Oral Presentation, New Orleans, LA, December 2017

American Geophysical Union (AGU) - "An Empirical Assessment of the MODIS Land Cover Dynamics and TIMESAT Land Surface Phenology Algorithms," Oral Presentation, San Francisco, CA, December 2016

American Geophysical Union (AGU) - "Organic Carbon Transport through Holocene and Pleistocene Sediment from Southeast Asia: Implications for Arsenic Mobilization," Poster Presentation, San Francisco, CA, December 2013

Teaching Experience

Teaching Fellow, Environmental Change and Sustainability, Boston University
- Designed and implemented weekly in-class worksheets and homework (2 semesters)

Teaching Fellow, Natural Environments: The Atmosphere, Boston University

- Instructed weekly lab lectures for up to 60 students introducing concepts and experiments for natural environment courses (1 semester)

Guest Lecture, Environmental Change and Sustainability, Boston University
- Lecture Title: The Laws of Energy and Matter

Guest Lecture, Remote Sensing of Environment, Boston University
- Lecture Title: Modeling dynamics of South American pasturelands to climate variability and human impact

Guest Lecture, Environmental Change and Sustainability, Boston University
- Lecture Title: Driving Forces of Environmental Change

Languages

Fluent in Bulgarian

Full Professional Proficiency in Spanish

Computer Skills

Statistical Packages: R, JAGS

Programming Languages: HTML, Bash, Python, some experience with Matlab

Applications: ArcGIS, QGIS, LaTeX, Microsoft Suite, Final Cut

Software: www.github.com/rkstan

Membership

American Geophysical Union

Association for Women in Science Massachusetts Chapter