Please join us for the next Hydrologic Sciences seminar:



Novel approaches to understanding spatial and temporal variation in water quality

By Dr. Matt Ross, Colorado State University

11am – 12pm, Wednesday, Sept 5, 2018, in ECCE 1B41

<u>Talk description:</u> This talk will focus primarily on a novel dataset that matches *in-situ* data from the water quality portal with Landsat overpasses. We use this dataset to make basin-wide longitudinal predictions in major rivers of the USA and explore some temporal and spatial variation in total suspended sediments, dissolved organic carbon, and chlorophyll a. I will focus on future research applications of this dataset and the approach, with a few links to related research.

Biography: I am an ecosystem/watershed ecologist interested in how people change the environment and how those changes are measured. I use ideas from geomorphology, hydrology, and ecology to understand how humans alter ecosystems. As a PhD student at Duke University, I worked with my advisers Emily Bernhardt, Martin Doyle, and Brian McGlynn to understand how mountaintop mining for coal has changed the physical landscape in Central Appalachia and how these changes lead to long-term and dramatic shifts in hydrologic and biogeochemical regimes and changes in local and regional water quality. As a post-doctoral researcher at UNC Chapel Hill, I worked with Tamlin Pavelsky on multi-spectral remote sensing techniques to understand water quality changes at regional to global scales. More of my research can be found on my Google Scholar page.