



Geographisches Kolloquium

Dienstag, 08.07.2025

Prof. Dr. Mirela Tulbure

NC State University

Leveraging Machine Learning and Satellite Data to Assess Flood and Farming Impacts on Communities

As climate variability intensifies, understanding its effects on vulnerable communities becomes increasingly urgent. In this talk, I will share recent work from my Geospatial Analysis for Environmental Change Lab, where we harness machine learning and deep learning algorithms to process terabytes of satellite data using cloud computing. My talk will focus on two major application areas at the land-water interface. First, I will present results from a NASA-funded project that maps and quantifies the impacts of global flooding events on people and infrastructure. Second, I will discuss findings from our research on the environmental consequences of concentrated animal feeding operations. Together, these projects not only advance scientific understanding of human-environment interactions but also provide actionable insights for policymakers and community planners working toward resilience and sustainability.

Erwin-Schrödinger Zentrum
Rudower Chaussee 26
Raum: 0'307
15:00 Uhr c.t. — Eintritt frei

