**Abstract:**
Addressing climate change in the United States requires enactment of national, state, and local mitigation and adaptation policies. The success of these initiatives depends on public opinion, policy support and behaviors at appropriate scales. Public opinion, however, is typically measured with national surveys that obscure geographic variability across regions, states and localities. Matto Mildenberger will present validated, high-resolution opinion estimates of public opinion using a multilevel regression and post-stratification model. The model accurately predicts climate change beliefs, risk perceptions, and policy preferences at the state, congressional district, metropolitan, and county levels, using a concise set of demographic and geographic predictors. Mildenberger will also share research extensions to map the spatial distribution of Republican and Democrat partisan opinions, and to model the spatially-resolved responsiveness of U.S. communities to messaging experiments.