Modeling the Effects of Land-Use Change on Regional Climate

• Integrate accurate land-cover data into a regional climate model
• Determine if improved land-surface representations in a regional climate model improves model accuracy
• Compare differences in water and energy fluxes over different land-cover types to understand the physical mechanisms by which land-use changes are affecting regional climate
• Quantify the effects of land-use change on regional climate, specifically precipitation and evapotranspiration
Over half of the Brazilian Cerrado (yellow) has been deforested and cleared for agropastoral purposes.
Have These Land-Use Changes Affected Regional Climate?

Aragao et al., 2012
Neukom Postdoctoral Fellowship Program

Neukom Fellows are interdisciplinary positions for recent Ph.D.s, DMAs, or MFAs whose research interests or practice cuts across traditional disciplinary boundaries, and has some computational component, whether it be a framing concept for intellectual exploration or an explicit component of the work that is pursued.