# UC Center Sacramento

# Compound and Cascading Hazards: Climate Modeling and Risk Assessment

## Wednesday, November 4th

## 12:00 - 1:00pm

**In light of the community concerns regarding COVID-19, this talk will be given as a webinar. The link will be provided on November 3rd to those that have registered by 5:00 pm on Monday, November 2nd at uccs.ucdavis.edu.**

*Ground-based observations and model simulations show substantial increases in extreme events including rainfall events, droughts, wildfires, hot spells and heatwaves. The first step toward improving our societal resilience is to identify the new patterns of climate extremes and natural hazards. This requires a better understanding of tempo-spatial characteristics of natural hazards and also the interactions between different hazards in a changing climate. A combination of climate events (e.g., high temperatures and high humidity, or low precipitation and high temperatures) may cause a significant impact on the ecosystem and society, although individual events involved may not be severe extremes themselves – a notion known as compound event (e.g., extreme rain over burned areas, combined ocean and terrestrial flooding). Numerous studies have focused on how different types of extremes have changed or might change in the future. However, very few studies have investigated the changing risk of compound and cascading events. This presentation focuses on three different types of compound and cascading events including drought-heatwaves, sea level rise-terrestrial flooding, and meteorological-anthropogenic drought. We present different methodological frameworks and perspectives for detecting, modeling and risk assessment of compound and cascading events.*

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