High-Resolution Climate Projections: Connecting Global Change to Local Impacts

Climate change is no longer a distant issue: its impacts already affect many aspects of life on this planet. Ensuring that our infrastructure, our resources, and the economy are prepared for future changes requires an understanding of what those changes will look like. Developing high-resolution projections that are relevant to local impacts, however, is a challenging task. Using practical examples from our work across the U.S., I will discuss and compare the statistical models and methods used to translate global climate model output into local to regional-scale climate information that can be used to inform climate-resilient long-term planning for cities, water districts, land management, and more.

About Katharine Hayhoe
Katharine Hayhoe is an atmospheric scientist whose research focuses on developing and applying high-resolution climate projections to understand what climate change means for people and the natural environment. She is a professor and director of the Climate Science Center at Texas Tech University and has a B.Sc. in Physics from the University of Toronto and an M.S. and Ph.D. in Atmospheric Science from the University of Illinois. Katharine has served as a lead author for the Second, Third, and Fourth U.S. National Climate Assessments. She has also received the National Center for Science Education’s Friend of the Planet award, the American Geophysical Union’s Climate Communication Prize, the Sierra Club’s Distinguished Service award, and the Stephen H Schneider Climate Communication Award.