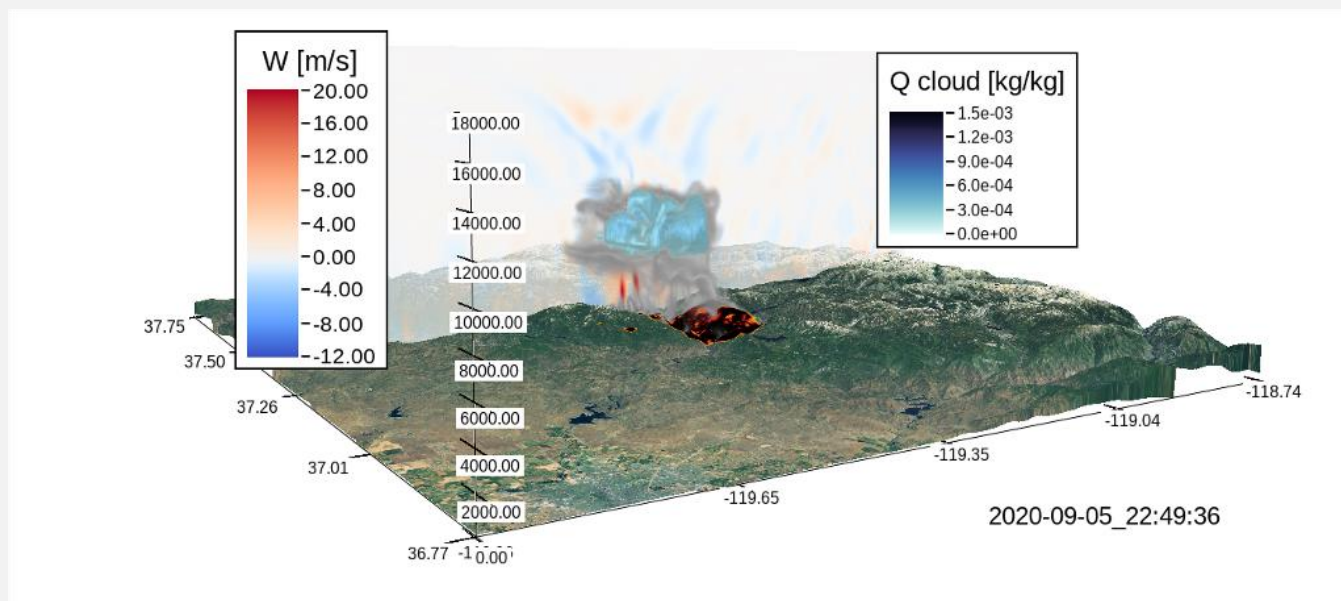


Forest Health Research Program Invited Webinar:
Coupled Fire-Weather Dynamics: The Interplay Between
Convective Plumes, Wind Patterns, and Fire Behavior

Adam Kochanski, PhD, San Jose State University



Wednesday, September 25, 2024

11:00 am – 12:00 pm

[Register here](#)

Abstract: While it is well-established that weather influences fire behavior, recent research highlights that fires themselves can significantly alter local weather through the generation of convective plumes and smoke. This presentation focuses on the complex interactions between fires and the atmosphere, emphasizing how fires can actively modify local weather conditions. The nature of these interactions varies between wind-dominated and plume-dominated fires, with specific scenarios where they may reduce fire progression rates, making them critical for advancing fire behavior predictions.

Dr. Adam Kochanski is an assistant professor at San José State University, leading wildfire modeling efforts at the Wildfire Interdisciplinary Research Center. His work centers on fire-atmosphere interactions, fire behavior, and air quality impacts, aiming to enhance fire and smoke forecasting. A co-developer of the WRF-SFIRE model, Dr. Kochanski works on advancing predictive capabilities and strengthening community resilience against wildfires.

The Forest Health Research Program is part of [California Climate Investments](#), a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

