## RAL SEMINAR SERIES

# Innovations in Fire Modeling:
# Fluid Dynamics, Data, and Computational Advances

## BRYAN QUAIFE

Associate Professor
Department of Scientific Computing
Florida State University

**Thursday, June 26, 2025** 2-3 PM (MT)
HYBRID MEETING FL2-1001 | Watch Live

At Florida State University, researchers at the Geophysical Fluid Dynamics Institute approach wildland fire as a multiscale problem in fluid dynamics, modeling the fire and the atmosphere as a coupled system. Over the past decade, we have developed a range of physical, statistical, and data-driven models to better understand fire-atmosphere interactions. I will survey several projects that illustrate how emerging methods in data science and computational fluid dynamics are revealing new insights into complex fire behavior, including plume development, smoke dispersion, and fire propagation. Event website