

Interdisciplinary collaboration in wildland fire management: UAS case studies and the Fire and Smoke Model Evaluation Experiment (FASMEE)

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Abstract:

While fire has shaped human civilization since the very beginning, modern societies face negative effects from mismanaged wildland fire all over the world. The factors that have led to these current challenges are complex, implying that their solutions will not be simple. Coordination across multiple disciplines is necessary for the managers and scientists who support them to effectively manage both wildfires and the prescribed fires used to reduce the risk of them. This coordination manifests in active-fire campaigns involving practitioners, modelers, and data-collection and management groups to produce datasets for training and evaluating models and underlying theories upon which they are built. This talk will provide a few examples from the speaker's own career working across the disciplines of ecology, remote sensing, and engineering disciplines, and from the largest contemporary active-fire data collection campaign, the Fire and Smoke Model Evaluation Experiment (FASMEE).

Bio:

Adam Watts is a research biologist at the US Forest Service Pacific Northwest Research Station, where he leads the Fire and Environmental Research Applications team, which studies wildland fire processes, fuels, and the complex and evolving relationships among people and fire. He is currently PI of the Fire and Smoke Model Evaluation Experiment, which involves the coordinated efforts of about 100 people at six agencies and over 20 partnering universities and NGOs. His background in fire ecology, fire science, and interdisciplinary research and his past work includes sensor development for measurements near wildfires with UAS and the ecological implications of fires in tropical peatlands. Previously, Dr. Watts was a research professor in an atmospheric sciences department, and he still enjoys the collaborations of students and faculty at a number of universities around the USA and other countries. He is also a former Peace Corps volunteer and volunteer firefighter, and a certified wildland fire ecologist and wildland fire practitioner.



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1310 Yeh Student Center