

School of Earth and Environmental Sciences Spring 2025 Colloquium Series

Wednesday, April 02, 2025

12:15 PM -1:30 PM

Zoom ID: 843 0287 5858

Passcode: 672323

Science Building C-207

Roman DiBiase

Associate Professor of Geosciences at Penn State University

Large-scale mapping of post-wildfire dry sediment loading using repeat airborne lidar in southern California

Post-wildfire debris flows are a major hazard to life and property along the wildland-urban interface in mountainous landscapes. However, the mechanisms for increased sediment delivery from burned watersheds are highly variable, making hazard prediction difficult. In this talk, I will present work highlighting results from southern California, where the increasing availability of repeat airborne lidar enables the tracking of post-fire sediment routing at decimeter resolution and over scales of hundreds of square kilometers. Our results highlight patterns in post-wildfire dry sediment delivery from hillslopes to channels, and their resulting connection to post-rainfall debris flow initiation in steep landscapes.

