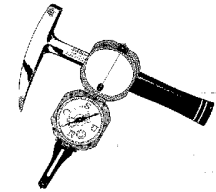


California State University
Northridge



The Department of Geological Sciences Presents:

Alexis Ault

Utah State University

Shallow, transient slow slip in the southern San Andreas fault system: insights from natural and experimental hematite and hematite-clay slip surfaces

Thursday, Nov. 17th, at 12:30 p.m. in LO1212

Please call (818) 677-3541 or email geology@csun.edu if you have any questions

Abstract:

Forecasting earthquake hazards requires knowledge of the slip distribution and mechanical behavior of the shallow crust.

Observations from exhumed fault rocks together with deformation experiments can constrain these parameters and inform deformation operative during the modern earthquake cycle. Here I focus on paired textural and thermochronometric data from natural and experimental hematite and hematite-clay slip surfaces in the southern San Andreas fault system to document how these surfaces form and deform. Results from networks of hematite slip surfaces in shallowly exhumed off-fault damage show that these surfaces develop by, and then accommodate, transient slow slip, potentially dampening or distributing earthquake energy.