UC **SANTA BARBARA**
Department of Earth Science

Speakers Club

WEBB 1100 • THURSDAY FEB 8th.• 2:00 PM

A Carbonate Record of Paleozoic Glaciation

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Sediments store the history of interactions between the solid earth, biology, climate, and Earth's orbit. Many of these interactions manifest as changes in sea level. Ice-albedo feedbacks during glacial periods amplify this signal of sea level change, which maximizes the potential to study how sediments record changing Earth systems. Earth plunged into 70 million years of glaciation soon after the evolution of tropical forests and the formation of the super continent Pangea. At spatial scales that range from grains in a hand sample to the whole Earth, I will show how ancient carbonates record start and beat of this late Paleozoic ice age. When sea level falls, rain water creeps into and flows through exposed carbonates. Reactions between these fluids and rocks can change ocean chemistry and climate. The rock record of these reactions forces us to revise how we relate isotope excursions to the carbon cycle.