



Eastbay Astronomical Society Presents

When: Saturday July 20th, 7:30 – 9:30PM

Where: Chabot Space and Science Center; Room: Chem/Physics Lab

Join us for our free monthly presentation on the latest in Astronomy! Along with our featured speaker, we will be giving away door prizes to a lucky few, as well as snacks and drinks to taste. Of course, weather permitting, there will be free telescope viewing on the decks.

“The Rock’s Clocks Talk

Bill Mitchell

In the Earth's most recent mass extinction, around 66 million years ago, many of the Earth's plant and animal species---most notably the dinosaurs---became extinct. The precise cause, however, has been elusive: did volcanic activity in modern India, which erupted lavas covering an area 1-3 times the size of California, or a meteor impact in the Yucatan peninsula of modern Mexico cause the dramatic changes in climate that killed these species? Did the extinction take place over a year or two, or was it over the course of 100,000 years? Once the extinction happened, how long did it take for the ecosystems to recover and stabilize? Our desire to understand these events, and to better understand the effects of rapid ecosystem changes, highlights the need for high-precision dating in geologic time.

Motivated by these questions, Bill Mitchell will discuss the work he and his collaborators have done to define the absolute age and relative timing of the meteor impact and the mass extinction, and how those events fit with fossil evidence. Additionally, he will address the process of measuring the age of rocks and getting the rock's clocks to talk.



About Bill

Bill Mitchell is a chemistry PhD student at the University of California, Berkeley. He got started with chemistry research as a high school student in Minneapolis, MN, and in 2008 he received a BA in chemistry from Carleton College. Working with Drs. Paul Renne and Roland Mundil at the Berkeley Geochronology Center, Bill uses uranium-lead dating to determine the timing of events surrounding mass-extinction events around 66 million years ago and 252 million years ago. Outside of the lab, he enjoys volunteering at the Lawrence Hall of Science where he teaches visitors about Earth science.

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