2nd Annual Cal Poly Pomona Student Research Conference  
March 7, 2014  
University Library, Oral Presentations from 1 to 4 pm  
Bronco Student Center (Ursa Minor), Poster Session and Reception from 4 to 6 pm

**Lead Author:** Rachel Hatch  
**Degree objective when research was completed:** Bachelor's  
**Major:** Geology  
**College:** COS

**Co-presenter(s):** Not applicable

**Faculty Mentor(s):** Dr. Jascha Polet

**Session:** 5: University Library - 15-2907  
**Time of Presentation:** 1:15 PM

**Presentation Type:** Oral presentation

**Project Title:** Analysis of Local Dynamic Triggering in Southern California Due to 2010 El Mayor Cucapah Earthquake

**Synopsis:** An analysis of triggered earthquakes caused by the passing surface waves in Southern California due to the El Mayor Cucapah earthquake that occurred on Easter Sunday, 2010.

**Abstract:** My investigation was on the 2010 magnitude 7.2 Baja California Easter Sunday Earthquake, also known as the El Mayor Cucapah Earthquake. In my examination of the local triggering in Southern California from this earthquake based on the waveform data of 386 seismic stations, I have found 27 stations where local dynamic triggering likely occurred. In the course of my investigation, a surface wave induced instrumental noise that initially appeared to suggest triggering was also detected in 63 of the 386 stations. To test my hypothesis that geothermal locations are more susceptible to triggering, I related my findings of true earthquake triggering to the tectonic environment of the stations and found that 31.7 % of stations in geothermal areas indicated triggering versus only 4.1 % of stations outside of these areas.