

# San Joaquin Geological Society

Date: Tuesday, October 9<sup>th</sup>, 2012

Time: 6:00 PM Social Hour

7:00 PM Dinner 8:00 PM Lecture

Place: American Legion

2020 H St. Bakersfield, CA 93301

**PSAAPG Members & Mesozoic's** 

\$25 w/reservation \$30 without reservation

Non PSAAPG Members \$30 w/reservation

Full-time Students with ID:

Free, Courtesy of Chevron & Occidental

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http://www.SanJoaquinGeologicalSociety.org/

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# \* RSVP \*

By: Friday October 5<sup>th</sup>, 2012

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# Geomorphic and Isotopic Constraints on the Evolution of Mountain Belt/Basin Systems

William Chris Krugh<sup>1</sup>

<sup>1</sup>California State University Bakersfield

The structural and stratigraphic architecture developed within linked mountain belt / basin systems is a complex record that reflects the tectonic, climate, and surface processes involved in erosion, sediment transport, and deposition. Each of these, often coupled, inputs can vary over spatial scales ranging from individual structures to entire orogens and over timescales ranging from short-term (<<106 yr) to long-term (>>106 yr). Constraints on these variables are important if we are to build a better understanding of the evolution of mountain belt / basin systems.

### This talk will focus on;

- 1) The use of deformed geomorphic markers and growth strata geometries to constrain the structural style of active deformation in the Eastern Precordillera/Sierras Pampeanas of Argentina,
- 2) Advances in the use of geochronology and thermochronology to constrain provenance, source area exhumation, and basin thermal histories, and
- 3) Potential application of the above techniques to the San Joaquin Valley and adjacent regions.

# William Chris Krugh -BIO

Chris received a BS in Geology from The Pennsylvania State University in 1999 and an MS in Geology from Oregon State University in 2003. He went on to earn a Ph.D. in Geology at the Swiss Federal Institute of Technology, ETH-Zürich, Switzerland in 2008. He was a Post-Doctoral Fellow at the University of Wyoming for two years and most recently a Visiting Assistant Professor at Colorado College. His research is focused on the mechanics of active geologic structures and their interaction with Earth's surface processes. He utilizes detailed field mapping, GIS topographic analysis, and geochronologic/thermochronologic dating techniques to characterize the style, timing, and rates of deformation associated with geologic structures. He joins the Department of Geological Sciences at CSUB where he will play a critical role in the expansion of geology projects both at the undergraduate and graduate levels.