

Schedule of Events

Thursday, April 3

Arizona Ballroom A (North)

Memorial Student Union

8:00 AM Coffee & Pastries

8:15 GeoDaze Welcome

Session I: Structural and Economic Geology

Session Leaders:

- 8:30 **Scott McBride**
Extensional Tectonics of the Cretaceous Pirgua Subgroup,
NW Argentina
- 8:45 **Alex Strugatskiy**
Structural Reconstruction and Reinterpretation of the Area
near Happy Valley, Little Rincon Mountains, Southeastern
Arizona
- 9:00 **Rory San Filippo**
Timing and Kinematics of the Bitter Spring Valley Fault and
Related Syn-Extensional Strata, Lake Mead Extensional
Domain, Nevada
- 9:15 **Christian Ríos Vargas**
The Geology of Santa Ana, A Newly discovered epithermal
silver deposit, Puno Province, Peru
- 9:30 **Francisco Quintanar**
The Herradura mine, an Orogenic gold deposit in northwest
Mexico
- 9:45 Break**

Session II: Planetary Geology

Session Leaders:

- 10:00 **Tamara J. Goldin**
Deposition of Distal K/T Ejecta via Density Currents
- 10:15 **Kelly J. Kolb**
Modeling Recent Flows on Mars in Search of Evidence for
Liquid Water
- 10:30 **Kathryn G. Gardner-Vandy**
Melting on FeO-rich Asteroids: A Link to the FeO-rich
Primitive Achondrites

- 10:45 **Priyanka Sharma**
Constraints on Titan's topography through fractal analysis of shorelines
- 11:00 **Colin Dundas**
HiRISE Observations of Fractured Mounds in the Martian Mid-Latitudes
- 11:15 Break**

Session III: Geophysics/Geodesy

Session Leaders:

- 11:30 **Jennifer L. McGraw**
Determining relative motion across the Gulf of California
- 11:45 **Austin A. Holland**
Analysis of resolution for a technique to determine time-variable crustal velocity using Continuous GPS Time-Series
- 12:00 **Joshua C. Spinler**
Monitoring evolution of Pacific-North America plate boundary through GPS observations, southern California
- 12:15 **M. Soledad Velasco**
Fault geometries and upper crustal extension in the Eastern Basin and Range, Western U.S.
- 12:30 Lunch Break**

1:30-3:30 PM Session IV: Posters

Geophysics

- 1 **M. Serkan Arca**
Seismic Reflection Imaging of a Breakaway Zone: A New Look at Core-Complex Development in Southeast Arizona
- 2 **C. Berk Biryol**
Preliminary Results from North Anatolian Fault Passive Seismic Experiment: Anisotropy
- 3 **Andy Frassetto**
Thickness, composition, and fabric of the crust throughout of the Sierra Nevada from teleseismic converted waves
- 4 **Christine Gans**
Insights Into the Crust and Upper Mantle Structure Beneath North-Central Turkey Using Regional Waveforms
- 5 **Ryan Porter**
Exploring Extension: Crustal and upper mantle structure in the Basin and Range
- 6 **Ryan Porter**
The SIEMBRA Array: Exploring Flat Slab Subduction
- 7 **Hande Tok**
Preliminary Results from North Anatolian Fault Passive Seismic Experiment: S-wave receiver function analysis
- 8 **Andrew McCallister**
Investigation of the San Andres Fault: GPS monitoring of San Gorgonio Peak

and San Jacinto Peak

9

Edge, R.D

Structural and Stratigraphic Characteristics of the Heidrun Oil Field from Analysis of 3-D Seismic Data

10

Eric Flood

A new global plate velocity solution

11

Philip J. Stokes

Combining geophysics and homicide: Ground penetrating radar investigations of a possible homicide burial site in the Arizona desert

12

Shoba Maraj

Teapot Dome 3-D Seismic Interpretation Project

Paleontology, Paleoclimate, and Fire History

13

Derek Hoffman

Extinction patterns in molluscan communities of the Florida Neogene: Effects of sampling and evenness

14

Robert D. Dietz

Nitrogen isotopes in bivalve shells from the Colorado River estuary: Evaluating a proxy for changes in nutrient delivery

15

Alison Drain

Intercomparison of IPCC Coupled Climate Models' Antarctic Sea Ice Predictions and Implications for Penguin Habitat

16

Morgan Helfrich

Physical evidence of deforestation along a modern rift lake: an on land and nearshore comparative study between two watersheds at Lake Tanganyika, Tanzania

17

Chris Johnson

Fire and Water: Wildfire frequency and climate change in East Africa over the last four centuries using paleolimnological techniques at Lake Tanganyika, Africa

18

Margaret Blome

A Synthesis of African Paleoclimate And Possible Implications for Middle Stone Age Archaeology: 150ka-35ka

19

Lombardo, Keith

Preliminary results from a multi-century reconstruction of Chaparral fire history in Southern California.

Hydrology

20

Stephen Osborn

Fluid and Gas Geochemistry of Upper Devonian Organic-Rich Shales, Northern Appalachian Basin

21

Candice B. Adkins

Investigating Ground-Water Movement Using Diverse Water Chemistries in the San Pedro Basin, Arizona

22

Jessica Driscoll

Evolution of Flowpaths in an Alpine Watershed of the Colorado Front Range, USA

Geochemistry, Geochronology, & Tectonics

- 23 **Robinson Cecil**
 Innovations in K-Ca Geochronology using MC-ICP-MS and Applications to Sedimentary Dating
- 24 **Lisa Molofsky**
 Application of U-Pb Geochronology to questions in Old World Archeology
- 25 **Douglas C. Kreiner**
 Minor element compositions of pyrite and epidote-group minerals from IOCG deposits, Copiapo, Chile
- 26 **Whitney Rutherford**
 Proterozoic paleogeography and stratigraphy of the eastern Nevada and southern Idaho miogeoclinal

Session V: Geophysics/ Seismology

Session Leaders:

- 3:30 PM **Anna Szidarovszky**
 Identification of Unexploded Ordnance from Clutter Using Neural Networks
- 3:45 **Jason A Stein**
 Analysis and Interpretation of 3-D Seismic Data, Kevin Dome, Central Montana
- 4:00 **Lepolt Linkimer**
 Crustal Thickness and Depth to the Subducting Slab Underneath Northern Costa Rica based on Receiver Function Analysis
- 4:15 **Berk Biryol**
 Source Rupture Process of the Solomon Islands Earthquake of April 1, 2007 Inferred from Teleseismic Body Waves
- 4:30 **Andy Frassetto**
 Flowing Asthenosphere and a Slab Window beneath the Coast Mountains Batholith, British Columbia

End of Thursday's GeoDaze activities

Friday, April 4

Arizona Ballroom A (North)

Memorial Student Union

8:00 AM Coffee & Pastries

8:15 Welcome and Announcements

Session VI: Paleoclimate, Biogeochemistry, Geomorphology, and Geoscience Education

Session Leaders:

- 8:30 **Mark Howe**
Teaching physical Geology to the visually disabled: A revised lab manual and teaching guide
- 8:45 **Angel Otárola**
The impact of turbulence on determining climate via radio occultation? Performance of ATOMMS under the effect of Atmospheric Turbulence
- 9:00 **Alysha Coppola**
Tropical Sea Surface and Salinity During Deglaciation Inferred From a new Tahitian Coral Oxygen Isotope and Sr/Ca Record
- 9:15 **Adam Csank**
Paleoclimate, and paleoecological reconstructions of the Pliocene Arctic: what tree-rings, mollusks and peat can tell us about the past to help us understand the future.
- 9:30 Break**
- 9:45 **Stephanie McAfee**
Comparing satellite- and tree-ring based measures of net primary production (NPP): a pilot study
- 10:00 **Todd Engelder**
The role of extreme hydrologic events in long runout gravel progradation in alluvial basins.
- 10:15 **Alexander Rohrmann**
Wind erosion as the primary source of erosion since dry climate establishment in the Qaidam Basin, China and tectonic implications.
- 10:30 **Amanda C. Reynolds**
Nutrient Sourcing for Ten Plant Species in the Southwestern U.S.A using Strontium Isotopes: Effects of Growth Form, Rooting Depth, Bedrock Type, and Landscape Age
- 10:45 Break**

Session VII: Geochronology & Geochemistry

Session Leaders:

- 11:00 **Kelley Stair**
A geochemical study on intermediate magmas from the Sierra de Valle Fertil: Insights into continental magmatic arc mechanics at depth
- 11:15 **Kevin Jones**
Radiocarbon chronology of Site QJ-280, Quebrada Jaguay, Peru.
- 11:30 **Alyson Thibodeau**
Following the Coronado Trail through Artifact-Based Lead Isotope Analysis
- 11:45 **Lisa Molofsky**
Prehistoric Trade of Tin in Southern Africa Revealed by Lead Isotopes
- 12:00 Lunch Break**
- 1:15 PM **Bailey Dugan**
New Production Rate Estimates for In Situ Cosmogenic ¹⁴C From Lake Bonneville, Utah and Northwest Scotland
- 1:30 **James Girardi**
Geochemical Evidence for the Development of and Removal of Gravitationally Unstable Residual Arc Rocks, Coast Mountains, B.C.
- 1:45 **Carla M. Eichler**
U-Pb ages of detrital zircons from sandstone of the Oligocene Chuska Formation, Northwestern New Mexico
- 2:00 **Alex Pullen**
Triassic continental subduction beneath the Qiangtang terrane in central Tibet and a case for Mediterranean-style closure of the Paleo-Tethys Ocean
- 2:15 **S. Lynn Peyton**
Low-Temperature Thermochronology of Borehole and Surface Samples From the Wind River and Beartooth Ranges, Wyoming and Montana
- 2:30 Break**
- 2:45 George Davis, Field Trip Preparation
- 3:00 Keynote Speaker, **Tekla A. Harms**, Department of Geology, Amherst College, Amherst, MA
A MAP-SCALE SHEATH FOLD IN THE TOBACCO ROOT MOUNTAINS, MONTANA AND ITS ROLE IN THE EVOLUTION OF THE 1.78-1.72 Ga BIG SKY OROGENY

4:00	Special Recognitions
4:30	Student Awards
4:45	Slide Show
5:00	Thank you's
7:00	GeoDaze Party

End of Friday's GeoDaze activities