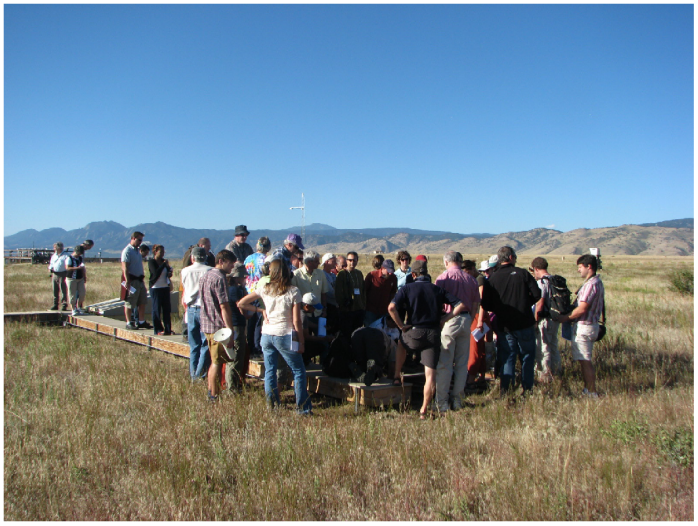
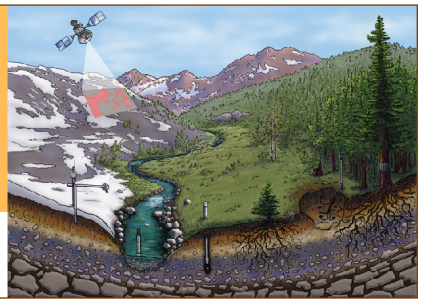


CZO@AGU 2012

December 3-7
San Francisco, California



National CZO Program

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CRITICAL ZONE OBSERVATORIES

studying the zone where rock meets life

AGU Critical Zone Observatory Agenda, Dec. 3-7, 2012

Date/Time of Presentation	Location/Session Info	Presentation Title/Author(s)	Affiliation
Monday, December 3			
8:00-12:20 PM	Hall A-C (Moscone South) B11A. B11A. Biogeosciences General Contributions Posters	B11A-0410. Incorporation of Disturbance and Seasonality in Terrestrial Carbon Flux Upscaling Kusum J. Naithani; Douglas C. Baldwin; Erica A. Smithwick; Kenneth J. Davis; Klaus Keller; Robert E. Kennedy; Jeffery G. Masek	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) GC11A. GC11A. Climate Change in Mountain Environments Posters	GC11A-0977. Quantifying thermal constraints on carbon and water fluxes in a mixed-conifer sky island ecosystem Zev Braun; Rebecca L. Minor; Daniel L. Potts; Greg A. Barron-Gafford	Arizona
8:00-12:20 PM	Hall A-C (Moscone South) H11B. H11B. Environmental Vadose Zone Hydrology Posters	H11B-1166. Hydropedological functional units: a novel and accurate catchment-scale characterization of soil hydrology Douglas C. Baldwin; Kusum J. Naithani; Hangsheng Lin	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) H11B. H11B. Environmental Vadose Zone Hydrology Posters	H11B-1176. Soil Moisture Dynamics in Deep Southern Sierra Nevada Soils Armen I. Malazian; Peter C. Hartsough; Jan W. Hopmans	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) H11E. H11E. Groundwater-Surface Water Interactions: Three Decades of Transient Storage Analysis to Understand River Transport and Watershed Connections Posters	H11E-1242. Exploring controls on saline tracer movement within the hyporheic zone using finite-element modeling and electrical resistivity Pallavi B. Chattopadhyay; Kamini Singha; Michael N. Gooseff	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) H11E. H11E. Groundwater-Surface Water Interactions: Three Decades of Transient Storage Analysis to Understand River Transport and Watershed Connections Posters	H11E-1245. Tracing Organic Matter in the Stream of a First-Order Catchment Rachel S. Gabor, Diane M. McKnight:	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1284. Design and Verification of an Inexpensive Ultrasonic Water Depth Sensor Using Arduino Todd M. Mihevc; Seshadri Rajagopal	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1285. Creative Uses of Custom Electronics for Environmental Monitoring Steven Hicks; Anthony K. Aufdenkampe; David S. Montgomery	Christina R. Basin
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1286. Arduino-based control system for measuring ammonia in air using conditionally-deployed diffusive samplers Jay M. Ham; Christina Williams; Kira B. Shonkwiler	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel	H11I-1288. Distributed All-Optical Sensor to Detect dCO2 in Aqueous Environments Sonja Bhatia; Jesse Coelho; Luis Melo; Ben Davies; Farid Ahmed; Bo Bao; Peter Wild; David	Boulder Creek

	Sensors, and Twitter Posters	A. Risk; David Sinton; Martin Jun	
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1289. Using Kinect to Measure Wave Spectrum Josephine Fong; Brice Loose; Ann Lovely	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1290. Design and use of a sparged platform for energy flux measurements over lakes Stephanie Gijsbers; Koen Wenker; Tim van Emmerik; Stijn de Jong; Frank Annor; Nick Van De Giesen	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1291. Accurately measuring volume of soil samples using low cost Kinect 3D scanner Boy-Santhos van der Sterre; Rolf Hut; Nick Van De Giesen	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1292. Now Ain't that Swell? A New Method for Measuring Hydraulic Conductivity in Expansive Soils Ryan D. Stewart; Majdi R. Abou Najm; David E. Rupp; John S. Selker	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1293. Practical Estimates of Field-Saturated Hydraulic Conductivity of Bedrock Outcrops using a Modified Bottomless Bucket Method Benjamin B. Mirus; Kimberlie S. Perkins	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1294. Revisiting the Fully Automated Double-ring Infiltrometer using Open-source Electronics John Ong; Dale Werkema, Jr.; John W. Lane	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1295. Fluorescent beeswax for surface flow velocity observations Salvatore Grimaldi; Flavia Tauro; Andrea Petroselli; Gabriele Mocio; Ilaria Capocci; Emiliano Rapiti; Roberto Rapiti; Giuliano Cipollari; Maurizio Porfiri	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1296. A hacker's guide to catching a debris flow: Lessons learned from four years of chasing mud in Colorado and southern California Jason W. Kean; Scott W. McCoy; Dennis M. Staley; Jeffrey Coe; Robert Leeper; Gregory E. Tucker	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1297. The Iowa Flood Center's River Stage Sensors—Technical Details James J. Niemeier; Anton Kruger; Daniel Ceynar; Hamid Fahim Rezaei	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1298. The Iowa Flood Center's River Stage Sensor Network - Analysis and Applications of Collected Data Ricardo Mantilla; Anton Kruger; Witold F. Krajewski; Marian Muste; Daniel Ceynar; Radoslaw Goska; Tibebu Ayalew	Boulder Creek

8:00-12:20 PM	Hall A-C (Moscone South) H11I. H11I. Transformative Measurements to Understand the Geosphere: Zip-Ties, Arduinos, Novel Sensors, and Twitter Posters	H11I-1299. The Iowa Flood Center's River Stage Sensor Network—Overview Witold F. Krajewski; Anton Kruger; James J. Niemeier; Ricardo Mantilla; Daniel Ceynar; Radoslaw Goska; Ibrahim Demir; Hamid Fahim Rezaei; Keith T. Gaynor	Boulder Creek
9:00-9:15 AM	3016 (Moscone West) H11L. H11L. Deciphering Hydrological and Biogeochemical Processes in Catchment Studies With a Focus on New Measurement Technologies and Hysteresis Analysis I	H11L-05. Hillslope recharge, advection, and dispersion as mechanisms for c-Q hysteresis *(Invited)* George Hornberger	Christina R. Basin
11:00-11:10 AM	3001 (Moscone West) GC12B. GC12B. Sustainable Future: Climate, Resources, and Development I	GC12B-05. Sharing Water Data to Encourage Sustainable Choices in Areas of the Marcellus Shale *(Invited)* Susan L. Brantley; Jorge D. Abad; Julie Vastine; David Yoxtheimer; Candie Wilderman; Radisav Vidic; Richard P. Hooper; Kathy Brasier	Susquehanna
1:40-6:00 PM	Hall A-C (Moscone South) B13C. B13C. Soil Organic Matter and Carbon Sequestration in the Anthropocene III Posters	B13C-0543. Relative control of dissolved organic matter (DOM) composition and concentration for carbon-mineral complexation Weinan Pan; Shreeram P. Inamdar; Donald L. Sparks; Anthony K. Aufdenkampe; Kyungsoo Yoo	Christina R. Basin
1:40-6:00 PM	Hall A-C (Moscone South) B13E. B13E. Warming waters: Role of Freshwaters in Regional and Global Carbon and Nutrient Cycling III Posters	B13E-0573. Whole watershed quantification of net carbon fluxes by erosion and deposition within the Christina River Basin Critical Zone Observatory Anthony K. Aufdenkampe; Diana L. Karwan; Rolf E. Aalto; Julia Marquard; Kyungsoo Yoo; Beth Wenell; Chunmei Chen	Christina R. Basin
1:40-6:00 PM	Hall A-C (Moscone South) H13D. H13D. Groundwater-Surface Water Interactions: Quantifying Their Functional Relevance With Measurements and Models of Water and Solute Dynamics II Posters	H13D-1381. Groundwater-surface water interactions in montane meadows of the Sierra Nevada, California Ryan G. Lucas; Martha H. Conklin	Southern Sierra
1:46-2:01 PM	3016 (Moscone West) H13I. H13I. Groundwater-Surface Water Interactions: Dynamics Across Spatial and Temporal Scales II	H13I-02. Dynamic response of surface water-groundwater exchange to currents, tides, and waves in a shallow estuary *(Invited)* Audrey H. Sawyer; Fengyan Shi; James T. Kirby; Holly A. Michael	Christina R. Basin
2:10-2:25 PM	303 (Moscone South) V13G. V13G. Tracing Earth Surface and Deep Processes Using Innovative Isotopic Approaches I: cosponsored by MSA	V13G-03. How does a single precipitation event erode a landscape? Clues from meteoric 7Be and 10Be analysis of suspended sediments and soils Marcie Occhi; Jane K. Willenbring; James M. Kaste; Martha A. Scholl; James B. Shanley	Luquillo
3:25–3:40 PM	303 (Moscone South) V13G. V13G. Tracing Earth Surface and Deep Processes Using Innovative Isotopic Approaches I: Cosponsored by MSA	V13G-08. Using U-series isotopes to quantify regolith formation and chemical weathering rates along a climosequence associated with the Susquehanna Shale Hills Critical Zone Observatory *(Invited)* Lin Ma; Francois J. Chabaux; Ashlee L. Dere; Tim White; Lixin Jin; Susan L. Brantley	Susquehanna
5:00-5:15 PM	3007 (Moscone West)	C14B-05. Integration of airborne LiDAR data	Southern Sierra

	C14B. C14B. Snow Cover–Vegetation Interactions I	and voxel-based ray tracing to determine high-resolution solar radiation dynamics at the forest floor: implications for improving stand-scale distributed snowmelt models Keith N. Musselman; Noah P. Molotch; Steven A. Margulis	
5:45-6:00 PM	3007 (Moscone West) C14B. C14B. Snow Cover–Vegetation Interactions I	C14B-08. Under-canopy snow accumulation and ablation measured with airborne scanning LiDAR altimetry and in-situ instrumental measurements, southern Sierra Nevada, CA Peter B. Kirchner; Roger C. Bales; Keith N. Musselman ; Noah P. Molotch	Southern Sierra
TUESDAY DECEMBER 04, 2012			
8:00-12:20 PM	Hall A-C (Moscone South) H21B. H21B. Advanced Watershed Characterization Using Remote Sensing Posters	H21B-1179. Elevation-dependent controls on snowmelt partitioning and vegetation response inferred from satellite observations *(Invited)* Noah P. Molotch; Bin Guan; Ernesto Trujillo	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) H21G. H21G. Large-Scale, Long-Term Changes in Catchment Hydrology and Water Quality I Posters	H21G-1248. Dissolved Organic Carbon Dynamics in Precipitation of Central Pennsylvania as Influenced by Climatic Variability Lidiia Iavorivska; Elizabeth W. Boyer; Jeffrey Grimm; Jose D. Fuentes	Susquehanna
8:15-8:30 AM	2003 (Moscone West) B21I. B21I. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses I	B21I-02. Insects, Fires, and Climate Change: Implications for Snow Cover, Water Resources and Ecosystem Recovery in Western North America Paul D. Brooks; Adrian A. Harpold; Joel A. Biederman; Marcy E. Litvak; Patrick D. Broxton; David Gochis; Noah P. Molotch; Peter A. Troch; Brent E. Ewers	Arizona
9:30-9:45 AM	2002 (Moscone West) B21F. B21F. Belowground Carbon Allocation: Responses, Allocation Strategies, and Coupled Biogeochemical Interactions I	B21F-07. Soil Microbial Activity Elucidates Unique Soil Carbon Transport Patterns within Resource Islands on Semi-Arid Hillslopes Jean E. McLain; Kathleen A. Lohse; Ciaran J. Harman	Arizona
9:30-9:45 PM	2003 (Moscone West) B21I. B21I. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses I	B21I-07. Consequences of warming and altered snowmelt timing on soil CO2, CH4, and N2O fluxes in the Sierra Nevada rain-snow transition zone Joseph C. Blankinship; Emma P. McCorkle; Matthew W. Meadows; Ryan G. Lucas; Stephen C. Hart	Southern Sierra
11:20-11:35 AM	2003 (Moscone West) B22D. B22D. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses II	B22D-05. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses II, Oral Presentation Characterization of hydrologic inputs and streamflow pathways in headwater catchments of Boulder Creek Watershed, CO Rory Cowie, Mark Williams, Joe Mills:	Boulder Creek
11:35-11:50 AM	2003 (Moscone West) B22D. B22D. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses II	B22D-06. Quantifying Variation in Solute Sources and Nutrient Cycling in Montane Headwater Catchments Adrian A. Harpold; Paul D. Brooks; Julia N. Perdrial; Jennifer C. McIntosh; Thomas	Arizona

		Meixner; Xavier Zapata; Jon Chorover	
1:40-6:00 PM	Hall A-C (Moscone South) B23H. B23H. When Winter Changes: Hydrological, Ecological, and Biogeochemical Responses Posters III	B23H-0541. The Effect of Terrain Aspect on Interannual Variability of Hydrologic Response in Mountainous Catchments in New Mexico Xavier Zapata; Peter A. Troch; Jennifer C. McIntosh; Patrick D. Broxton; Paul D. Brooks	Arizona
1:40-6:00 PM	Hall A-C (Moscone South) GC23B. GC23B. Global Environmental Change: General Contributions I Posters	GC23B-1068. Shifts in Timing and Magnitude of Precipitation Modulate Soil Carbon Pools in Semi-Arid Ecosystems Stephen Joy; David P. Huber; Kathleen A. Lohse; Matthew J. Germino; Marie-Aanne De Graaff; Kevin P. Feris	Arizona
1:40-6:00 PM	Hall A-C (Moscone South) V23E. V23E. Tracing Earth Surface and Deep Processes Using Innovative Isotopic Approaches II Posters: Cosponsored by MSA	V23E-2875. Drawdown of atmospheric CO_2 by gray shale weathering: insights from carbon, sulphur, and oxygen isotope systematics in the Susquehanna Shale Hills Critical Zone Observatory Lixin Jin; Nives Ogrinc; Tiffany Yesavage; Jason P. Kaye; Susan L. Brantley	Susquehanna
1:40-6:00 PM	Hall A-C (Moscone South) V23E. V23E. Tracing Earth Surface and Deep Processes Using Innovative Isotopic Approaches II Posters: Cosponsored by MSA	V23E-2877. Using Uranium-series Isotopes to Trace Water Sources to Streamflow and Estimate Soil Formation Rates in a Semiarid Montane Catchment David M. Huckle; Lin Ma; Jennifer C. McIntosh; Craig Rasmussen; Jon Chorover	Arizona
1:40-6:00 PM	Hall A-C (Moscone South) V23E. V23E. Tracing Earth Surface and Deep Processes Using Innovative Isotopic Approaches II Posters: Cosponsored by MSA	V23E-2878. Determining solute inputs to soil and stream waters in a seasonally snow-covered mountain catchment in northern New Mexico using Ge/Si, $^{87}Sr/^{86}Sr$ and ion chemistry Courtney M. Porter; Jennifer C. McIntosh; Louis A. Derry; Thomas Meixner; Jon Chorover; Paul D. Brooks; Craig Rasmussen; Julia N. Perdrial	Arizona
WEDNESDAY DECEMBER 05, 2012			
8:00-12:20 PM	Hall A-C (Moscone South) B31B. B31B. Global Soil Change: New Frontiers for the Biogeosciences II Posters	B31B-0412. Minerals vs. Microbes: Biogeochemical Controls on Carbon Storage in Humid Tropical Forest Soils Steven J. Hall; Whendee L. Silver	Luquillo
8:00-12:20 PM	Hall A-C (Moscone South) B31B. B31B. Global Soil Change: New Frontiers for the Biogeosciences II Posters	B31B-0424. Soils as a Record of Anthropogenic Metal Inputs: From Susquehanna Shale Hills Critical Zone Observatory to Marietta, Ohio Megan Carter; Elizabeth Herndon; Susan L. Brantley	Susquehanna
8:00-12:00 PM	Hall A-C (Moscone South) B31C. B31C. Mercury Cycling in Heterogeneous Environments: Global and Local Factors III Posters	B31C-0443. Just passing through --- high Hg deposition to Puerto Rico forest moves quickly off the landscape James B. Shanley; Jane K. Willenbring; James M. Kaste; Marcie Occhi; William H. McDowell	Luquillo
8:00-12:20 PM	Hall A-C (Moscone South) EP31A. EP31A. Advances in Numerical Modeling of River Fluxes Under Changing Environmental Conditions I Posters	EP31A-0799. Partitioning a Steady State Sediment Budget to Represent Long tailed Distributions of Contaminant Residence Times: A Modeling Approach for Routing Tracers Through Alluvial Storage Reservoirs James E. Pizzuto; Tobias R. Ackerman	Christina R. Basin

8:00-12:20 PM	Hall A-C (Moscone South) EP31C. EP31C. Quantifying Hillslope and Fluvial Processes Through Change Detection Using High-Resolution, Multitemporal Topographic Data I	EP31C-0832. Quantifying post-wildfire erosion patterns using terrestrial LiDAR Francis Rengers, Gregory E. Tucker, John A. Moody	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) H31B. H31B. Isotope Techniques for Revisiting Water Cycle in Catchments I Posters	H31B-1117. What controls the shape of transit time distributions? Ingo Heidbuechel; Peter A. Troch	Arizona
8:00-12:20 PM	Hall A-C (Moscone South) H31B. H31B. Isotope Techniques for Revisiting Water Cycle in Catchments I Posters	H31B-1122. Patterns in tree water isotopic signature at the Shale Hills Critical Zone Observatory Katie Gaines; David M. Eissenstat	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) H31G. H31G. Using Field Measurements and Experiments to Advance Science II Posters	H31G-1198. Integrating soil water measurements from plot to catchment scale in a snow-dominated, mixed-conifer forest of the southern Sierra Nevada Matthew W. Meadows; Peter C. Hartsough; Roger C. Bales; Jan W. Hopmans; Armen I. Malazian	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) H31G. H31G. Using Field Measurements and Experiments to Advance Science II Posters	H31G-1208. Strategic sampling of microclimate, soil moisture and sapflux for improving ecohydrological model estimates in the California Sierra Kyongho Son; Christina Tague	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) H31G. H31G. Using Field Measurements and Experiments to Advance Science II Posters	H31G-1211. Paired tree and soil instrumentation: what can we learn from two instrumented sites across various gradients in a forested catchment Peter C. Hartsough; Ekaterina Roudneva; Armen I. Malazian; Matthew W. Meadows; Roger C. Bales; Jan W. Hopmans	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) H31H. H31H. Using Remote Sensing and Global Weather Data Sets for Hydrologic Modeling in Data-Scarce Regions: Opportunities and Challenges I Posters	H31H-1231. A Two-Scale Parameterization for Distributed Watershed Modeling Using National Data and Evolutionary Algorithm Xuan Yu; Gopal Bhatt; Christopher Duffy; Yuning Shi	Susquehanna
9:45-10:00AM	3022 (Moscone West) H31N. H31N. Recent Advances in Modeling Water in the Coupled Earth System I	H31N-08. The Essential Terrestrial Variables (ETV's) in Support of a National Framework for Numerical Watershed Prediction *(Invited)* Christopher Duffy; Lorne N. Leonard; Stanley Ahalt; Ray Idaszak; David Tarboton; Richard P. Hooper; Lawrence E. Band	Susquehanna
11:05-11:20 AM	3007 (Moscone West) C32B. C32B. Diagnosing Modeling Deficiencies and the Recent Advances in Monitoring, Measuring, and Modeling Snow Processes I	C32B-04. Seasonal and inter-annual snowmelt patterns in the southern Sierra Nevada, California *(Invited)* Keith N. Musselman; Noah P. Molotch; Steven A. Margulis	Southern Sierra
11:50–12:05 PM	3007 (Moscone West) C32B. C32B. Diagnosing Modeling Deficiencies and the Recent Advances in Monitoring, Measuring, and Modeling Snow Processes I	C32B-07. Connecting the snowpack to the internet of things: an IPv6 architecture for providing real-time measurements of hydrologic systems *(Invited)* Branko Kerkez; Ziran Zhang; Carlos Oroza; Steven D. Glaser; Roger C. Bales	Southern Sierra
1:40 - 6:00 PM	Hall A-C (Moscone South)	B33B-0527. Carbon and nutrient cycling in	Arizona

	B33B. B33B. Global Change and the Biogeochemistry of Dryland Ecosystems II Posters	ephemeral streams in the American Southwest Kathleen A. Lohse; Thomas Meixner	
1:40 - 6:00 PM	Hall A-C (Moscone South) C33C. C33C. Quantifying Spatial Variability of Snow and Snow Processes II Posters	C33C-0683. Sampling design and optimal sensor placement strategies for basin-scale SWE estimation Branko Kerkez; Stephen C. Welch; Roger C. Bales; Steven D. Glaser; Karl E. Rittger; Robert Rice	Southern Sierra
1:40 - 6:00 PM	Hall A-C (Moscone South) C33D. C33D. Snow Cover–Vegetation Interactions II Posters	C33D-0684. Effects of forest structure on snow accumulation and melt derived from ecohydrological instrument clusters across the Western US *(Invited)* Noah P. Molotch; Keith N. Musselman; Peter B. Kirchner; Roger C. Bales; Paul D. Brooks	Arizona/ Southern Sierra
1:40 - 6:00 PM	Hall A-C (Moscone South) C33D. C33D. Snow Cover–Vegetation Interactions II Posters	C33D-0685. The shifting nature of vegetation controls on peak snowpack with varying slope and aspect Joel A. Biederman; Adrian A. Harpold; Patrick D. Broxton; Paul D. Brooks	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H33E. H33E. Interactions of Precipitation with Forest Canopies Across Spatial and Temporal Scales: Measurements and Modeling Posters	H33E-1374. Beryllium-7 Wet Deposition in Open Precipitation and Canopy Throughfall Diana L. Karwan; Delphis F. Levia; Courtney M. Siegert; James E. Pizzuto	Christina R. Basin
1:40 - 6:00 PM	Hall A-C (Moscone South) H33E. H33E. Interactions of Precipitation with Forest Canopies Across Spatial and Temporal Scales: Measurements and Modeling Posters	H33E-1378. Synoptic Climatological Approaches to Assessing Subcanopy Hydrologic and Nutrient Fluxes in a Temperate Deciduous Forest Courtney M. Siegert; Delphis F. Levia; Daniel J. Leather	Christina R. Basin
1:40 - 6:00 PM	Hall A-C (Moscone South) H33F. H33F. Patterns in Soil-Vegetation-Atmosphere Systems: Monitoring, Modeling, and Data Assimilation II Posters	H33F-1385. An Integrated Model Framework of Catchment-Scale Ecohydrological Processes Guo-Yue Niu; Peter A. Troch; Claudio Paniconi; Xubin Zeng; Russell L. Scott; Travis E. Huxman; Jon D. Pelletier	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H33H. H33H. Recent Advances in Modeling Water in the Coupled Earth System II Posters	H33H-1429. Using the Hillslope-Storage Boussinesq (hsB) Model for horizontal water movement in global land modeling Patrick D. Broxton; Pieter Hazenberg; Guo-Yue Niu; Peter A. Troch; Xubin Zeng; Jon D. Pelletier	Arizona
2:55 - 3:10 PM	2003 (Moscone West) EP33E. EP33E. Tracers, Transport, and Topography: Theory and Technology for Tractive Tracking II	EP33E-06. Deterministic and stochastic dynamics of bed load tracer particles in a coarse grained river Colin B. Phillips; Raleigh L. Martin; Douglas J. Jerolmack	Luquillo
3:10-3:25 PM	2007 (Moscone West) EP33C. EP33C. Ecogeomorphology: Footprints on a Landscape II	EP33C-08. Ecogeomorphology: Impressions of organisms in critical zone evolution (*Invited)* SP Anderson, N Fierer, R Gabor, H Barnard, RS Anderson, B Hoffman, and D McKnight:	Boulder Creek
4:00-4:15 PM	3016 (Moscone West) H34B. H34B. Isotope Techniques for Revisiting Water Cycle in Catchments II	H34B-01. Comparison of Stable Isotope Composition in Precipitation between Atmospheric General Circulation Models and	Susquehanna

		Shale Hills Critical Zone Observations Evan Thomas; Kei Yoshimura; Christopher Duffy	
5:30-5:45 PM	2004 (Moscone West) B34C. B34C. Linking the Terrestrial and Aquatic Carbon Cycles I	B34C-07. Lateral redistribution of dissolved vs. complexed organic matter with soil erosion Erin Stacy; Stephen M. Meding; Carolyn T. Hunsaker; Dale W. Johnson; Stephen C. Hart; Asmeret A. Berhe	Southern Sierra
5:45-6:00 PM	2004 (Moscone West) B34C. B34C. Linking the Terrestrial and Aquatic Carbon Cycles I	B34C-08. Erosion of bulk and pyrogenic C from upland forested Sierra Nevada ecosystems *(Invited)* Asmeret A. Berhe; Erin Stacy; Matthew McClintock; Alexander Newman; Stephen C. Hart; Carolyn T. Hunsaker; Dale W. Johnson	Southern Sierra
THURSDAY, DECEMBER 06, 2012			
8:00-12:20 PM	Hall A-C (Moscone South) B41D. B41D. Linking the Terrestrial and Aquatic Carbon Cycles II Posters	B41D-0313. The "Flushing" of Dissolved Organic Carbon from Hillslope Soils to a Headwater Stream Yi Mei; George Hornberger; Louis A. Kaplan; Anthony K. Aufdenkampe; J D. Newbold	Christina R. Basin
8:00-12:20 PM	Hall A-C (Moscone South) EP41C. EP41C. Natural and Controlled Experiments in Landscape Evolution I Posters	EP41C-0812. Combining natural experiments in source lithology with laboratory tumbling to quantify sediment resistance to comminution and its role in downstream fining Jonathan D. Beyeler; Leonard S. Sklar; Clifford S. Riebe	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport I Posters	EP41D-0821. Effects of bedrock nutrient density on vegetation and topography in the Sierra Nevada Batholith, California W. Jesse Hahm; Clifford S. Riebe; Sayaka Araki	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport I Posters	EP41D-0822. Moving Beyond the Average in Cosmogenic Nuclide Studies of Erosion and Weathering Claire Lukens; Clifford S. Riebe; Leonard S. Sklar; David L. Shuster	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport I Posters	EP41D-0832. Weathering the deep Critical Zone, understanding the controls on carbon-mineral association in a first-order watershed Beth Wenell; Kyungsoo Yoo; Anthony K. Aufdenkampe; Edward A. Nater	Christina R. Basin
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport I Posters	EP41D-0833. How lithology and climate affect REE mobility and fractionation along a shale weathering transect of the Susquehanna Shale Hills Critical Zone Observatory Lin Ma; Lixin Jin; Ashlee L. Dere; Tim White; Ryan Mathur; Susan L. Brantley	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport I Posters	EP41D-0835. Spatial patterns of mobile regolith thickness and meteoric ^{10}Be in the Boulder Creek Critical Zone Observatory, Front Range, Colorado Neil Shea, William Ouimet, David P Dethier, Paul R Bierman, Dylan H. Rood:	Boulder Creek
8:00-12:20 PM	Hall A-C (Moscone South) EP41D. EP41D. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and	EP41D-0836. Testing hillslope transport models in the Susquehanna Shale Hills Critical Zone Observatory Nicole West; Eric Kirby	Susquehanna

	Transport I Posters		
8:00-8:15 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-01. Weathering of Fractured Rock in the Deep Critical Zone *(Invited)* Heather L. Buss; Ekaterina Bazilevskaya; Susan L. Brantley; Frederick N. Scatena; Marjorie S. Schulz; Art F. White	Susquehanna/ Boulder Creek/ Luquillo
8:15 - 8:30 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-02. Probing the Architecture of the Weathering Zone in a Tropical System in the Rio Icacos Watershed (Puerto Rico) With Drilling and Ground Penetrating Radar (GPR) Joe Orlando; Xavier Comas; Gregory J. Mount; Susan L. Brantley	Susquehanna/ Boulder Creek/ Luquillo
8:30 - 8:45 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-03. Geophysics in the Critical Zone: Constraints on Deep Weathering and Water Storage Potential in the Southern Sierra CZO W Steven Holbrook; Clifford S. Riebe; Jorden L. Hayes; Kyle Reeder; Dennis L. Harry; Armen I. Malazian; Anthony Dosseto; Peter C. Hartsough; Jan W. Hopmans	Boulder Creek/ Southern Sierra
8:45 - 9:00 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-04. Fracture Patterns within the Shale Hills Critical Zone Observatory *(Invited)* Kamini Singha; Tim White; J Taylor Perron; Pallavi B. Chattopadhyay; Christopher Duffy	Susquehanna/ Boulder Creek
9:00 - 9:15 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-05. Carbon and water, the energy for weathering and chemical denudation Julia N. Perdrial; Craig Rasmussen; Jennifer C. McIntosh; Xavier Zapata; Adrian A. Harpold; Angelica Vazquez; Courtney M. Porter; Paul D. Brooks; Thomas Meixner; Bhaskar Mitra; Peter A. Troch; Jon Chorover	Arizona/Boulder Creek
9:15 - 9:30 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-06. Landslide-induced weathering: insight from a deep bedrock tunnel in Taiwan and implications for the carbon cycle. Caroline E. Martin; Albert Galy; Damien Calmels; Niels Hovius; Mike Bickle; Meng-Chiang Chen	Boulder Creek
9:30 - 9:45 AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-07. Shallow seismic investigations of fracture densities and distributions within the deep critical zone *(Invited)* Brian A. Clarke	Boulder Creek
9:45-10:00AM	2008 (Moscone West) EP41I. EP41I. The Deep Critical Zone and the Inception of Surface Processes I	EP41I-08. The Influence of the Deep Critical Zone under Hillslopes on Hydrologic, Geomorphic, and Ecological Processes *(Invited)* William Dietrich; Daniella M. Rempe; Jasper Oshun	Boulder Creek
10:50-11:05 AM	2008 (Moscone West) EP42D. EP42D. Soil: The Terrestrial Critical Zone Biogeoreactor	EP42D-03. Linking soil element-mass-transfer to microscale mineral weathering in the Santa Catalina Critical Zone Observatory Rebecca A. Lybrand; Craig Rasmussen	Arizona
11:05 - 11:20 AM	2008 (Moscone West) EP42D. EP42D. Soil: The Terrestrial Critical Zone Biogeoreactor	EP42D-04. Domes, Ash and Dust – Controls on soil genesis in a montane catchment of the Valles Caldera, New Mexico Craig Rasmussen; Stephen M. Meding; Angelica Vazquez; Jon Chorover	Arizona
11:50-12:05 PM	3010 (Moscone West) A42B. A42B. Coastal Fog: Atmosphere,	A42B-07. Stable Isotope Signatures Illustrate the Importance of Fog and Cloud Water in	Luquillo

	Biosphere, Ocean, and Land Interactions I	Ecohydrological Processes *(Invited)* Martha A. Scholl	
1:40 - 1:40 PM	Hall A-C (Moscone South) **B**43F. B43F. The Bioatmospheric N Cycle: N Emissions, Transformations, Deposition, and Terrestrial and Aquatic Ecosystem Impacts III Posters	B43F-0468. A Three Dimensional View of Nutrient Hotspots in a Sierra Nevada Forest Soil Dale W. Johnson; Matthew W. Meadows; Casandra Woodward	Southern Sierra
1:40 - 1:40 PM	Hall A-C (Moscone South) B43H. B43H. Urban Biogeochemical Cycles I Posters	B43H-0515. Inorganic nitrogen cycling in ephemeral urban waterways of the semi-arid Southwest Erika L. Gallo; Kathleen A. Lohse; Paul D. Brooks; Thomas Meixner; Mitchell Pavao-zuckerman	Arizona
1:40- 1:40 PM	Hall A-C (Moscone South) EP43A. EP43A. Soil: The Terrestrial Critical Zone Biogeoreactor Posters	EP43A-0859. Quantifying catchment scale soil variability in Marshall Gulch, Santa Catalina Mountains Critical Zone Observatory Molly Holleran; Craig Rasmussen	Arizona
1:40 - 1:40 PM	Hall A-C (Moscone South) **E**P43A. EP43A. Soil: The Terrestrial Critical Zone Biogeoreactor Posters	EP43A-0866. Does the composition of streamwater colloidal and particulate matter change during monsoon storms? Jessica Prescott-Smith; Michael A. Pohlmann; Julia N. Perdrial; Nicolas Perdrial; Peter A. Troch; Jon Chorover	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) EP43A. EP43A. Soil: The Terrestrial Critical Zone Biogeoreactor Posters	EP43A-0867. Resolving dissolved versus colloidal and particulate weathering product forms across the storm hydrograph Michael A. Pohlmann; Julia N. Perdrial; Jessica Prescott-Smith; Mary Kay Amistadi; Peter A. Troch; Jon Chorover	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) EP43B. EP43B. The Deep Critical Zone and the Inception of Surface Processes II Posters	EP43B-0868. Rock strength reductions during incipient weathering Patrick Kelly, Suzanne Anderson, Alex Blum	Boulder Creek
1:40 - 6:00 PM	Hall A-C (Moscone South) EP43B. EP43B. The Deep Critical Zone and the Inception of Surface Processes II Posters	E43B-0870. High Compressive Stresses Near the Surface of the Sierra Nevada, California Stephen J. Martel; John M. Logan; Greg M. Stock	Boulder Creek
1:40 - 6:00 PM	Hall A-C (Moscone South) EP43B. EP43B. The Deep Critical Zone and the Inception of Surface Processes II Posters	EP43B-0871. Fractures in the Critical Zone: Insights from GPR and seismic refraction surveys James T. St. Clair; W Steven Holbrook; Clifford S. Riebe	Boulder Creek/ Southern Sierra
1:40 - 6:00 PM	Hall A-C (Moscone South) H43A. H43A. Advances in Hydrometeorological Predictions and Applications III Posters	H43A-1317. Parameter Estimation of a Physically-Based Land Surface Hydrologic Model Using the Ensemble Kalman Filter Yuning Shi; Kenneth J. Davis; Fuqing Zhang; Christopher Duffy	Susquehanna
1:40 - 6:00 PM	Hall A-C (Moscone South) H43D. H43D. Modern Approaches in Hydrogeology: Conceptual and Numerical Model Advances in Cross-Disciplinary Approaches II Posters	H43D-1388. Effectiveness of Hydraulic Parameterization Strategies for Simulating Moisture Dynamics in a Deep Semi-Arid Vadose Zone Yonggen Zhang; Marcel G. Schaap	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H43F. H43F. Surface Hydrology Posters	H43F-1437. Comparison of Particulate and Dissolved organic carbon exports from forested piedmont catchments	Christina R. Basin

		Shreeram P. Inamdar; Gurbir Dhillon	
2:40 - 2:55 PM	2008 (Moscone West) EP43E. EP43E. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport II	EP43E-05. Evaluating the steady-state assumption for mobile-regolith on hillslopes using in situ produced 10Be, Boulder Creek CZO, Colorado Front Range Melissa A. Foster, Robert S. Anderson, Brian L. Spitzmiller	Boulder Creek
3:10 - 3:25 PM	2008 (Moscone West) EP43E. EP43E. Rock to Sediment: Biotic, Lithologic, and Climatic Controls on Regolith Production, Mixing, and Transport II	EP43E-07. Altitudinal increase in size of sediment shed from slopes revealed by tracer thermochronometry Clifford S. Riebe; Leonard S. Sklar; Claire E. Lukens; David L. Shuster	Southern Sierra
3:28 - 3:40 PM	3018 (Moscone West) H43K. H43K. Utilizing Precipitation Datasets in Hydrometeorological Applications II	43K-08. Frequency-magnitude-area relationships for precipitation and flood discharges derived from Next-Generation Radar (NEXRAD): Example application in the Upper and Lower Colorado River Basins Caitlin A. Orem; Jon D. Pelletier	Arizona
FRIDAY, DECEMBER 07, 2012			
8:00-12:20 PM	Hall A-C (Moscone South) B51B. B51B. Biosphere-Atmosphere Greenhouse Gas Fluxes in Terrestrial Ecosystems V Posters	B51B-0511. Influence of understory greenness on trace gas and energy exchange in forested ecosystems Jessica Swetish; Shirley A. Papuga; Marcy E. Litvak; Greg A. Barron-Gafford; Bhaskar Mitra	Arizona
8:00-12:20 PM	Hall A-C (Moscone South) B51C. B51C. Climatic Controls on Net Ecosystem Exchange (NEE) I Posters	B51C-0559. Water and energy gradients produce resilience and thresholds in ecosystem function in the western Sierra Nevada Mountains Anne E. Kelly; Michael Goulden; Roger C. Bales; Matthew W. Meadows; Greg Winston	Southern Sierra
8:00-12:20 PM	Hall A-C (Moscone South) P51A. EP51A. Do Characteristic Landscape Features Correspond to a Unique Process? I Posters	EP51A-0962. Controls on the spacing and geometry of rill networks on hillslopes: Rainsplash detachment, initial hillslope roughness, and the competition between fluvial and colluvial transport Luke Mcguire; Jon D. Pelletier; Jose A. Gomez; Mark Nearing	Arizona
8:00-12:20 PM	Hall A-C (Moscone South) H51B. H51B. Ecohydrology of Terrestrial and Aquatic Ecosystems in an Era of Rapid Change II Posters	H51B-1336. Hydrologic response to modeled snowmelt input in alpine catchments in the Southwestern United States Jessica M. Driscoll; Noah P. Molotch; Steven M. Jepsen; Thomas Meixner; Mark W. Williams; James O. Sickman	Arizona
8:00-12:20 PM	Hall A-C (Moscone South) H51B. H51B. Ecohydrology of Terrestrial and Aquatic Ecosystems in an Era of Rapid Change II Posters	H51B-1344. Factors impacting manganese transport from soils into rivers using data from Shale Hills CZO Elizabeth Herndon; Susan L. Brantley	Susquehanna
8:00-12:20 PM	Hall A-C (Moscone South) H51C. H51C. Ecohydrology of Tropical Forests: Processes, Feedbacks, and Change I Posters	H51C-1353. Impact of large storms on runoff from leeward and windward watersheds, eastern Puerto Rico Sheila F. Murphy; Robert F. Stallard	Luquillo
8:15 - 8:30 AM	3001 (Moscone West) GC51F. GC51F. Forest Hydrology Within the Context of Global Change and Forest Health	GC51F-02. The geography of forest drought vulnerability: Integrating modeling and measurements *(Invited)* Christina Tague	Southern Sierra
9:00 - 9:15 AM	3001 (Moscone West) GC51F. GC51F. Forest Hydrology	GC51F-05. Forest management effects on snow, runoff and evapotranspiration in Sierra Nevada	Southern Sierra

	Within the Context of Global Change and Forest Health	mixed-conifer headwater catchments Ram L. Ray; Philip C. Saksa; Roger C. Bales; Martha H. Conklin	
9:30 - 9:45 AM	2008 (Moscone West) EP51D. EP51D. Advances in Experimental Earth Surface Processes I	EP51D-07. The hills are alive: Earth surface dynamics in the University of Arizona Landscape Evolution Observatory *(Invited)* Stephen DeLong; Peter A. Troch; Greg A. Barron-Gafford; Travis E. Huxman; Jon D. Pelletier; Katerina Dontsova; Guo-Yue Niu; Jon Chorover; Xubin Zeng	Arizona
10:20 - 10:35 AM	3003 (Moscone West) H52E. H52E. Understanding Process Dynamics in the Critical Zone at Different Scales I	H52E-01. Modeling of Soil and Tree Water Status Dynamics in a Mixed-Conifer Forest of the Southern Sierra Critical Zone Observatory *(Invited)* Jan W. Hopmans; Joerg Rings; Tamir Kamai; Maziar Mollaei Kandelous; Peter C. Hartsough; Jasper A. Vrugt	Southern Sierra
11:05 - 11:20 AM	3014 (Moscone West) H52A. H52A. Dryland Ecohydrology: Critical Issues and Technical Advances I	H52A-04. Ecohydrological responses of a model semiarid system to precipitation pulses after a global change type dry-down depend on growth-form, event size, and time since establishment Greg A. Barron-Gafford; Rebecca L. Minor; Zev Braun; Daniel L. Potts	Arizona
11:05 - 11:20 AM	3003 (Moscone West) H52E. H52E. Understanding Process Dynamics in the Critical Zone at Different Scales I	H52E-04. Connections between transport in events and transport at landscape-structuring timescales *(Invited)* Ciaran J. Harman; Kathleen A. Lohse; Peter A. Troch; Murugesu Sivapalan	Arizona
12:05 - 12:20 PM	3014 (Moscone West) H52A. H52A. Dryland Ecohydrology: Critical Issues and Technical Advances I	H52A-08. Understanding the biological underpinnings of ecohydrological processes Travis E. Huxman; Russell L. Scott; Greg A. Barron-Gafford; Erik P. Hamerlynck; Darrel Jenerette; David T. Tissue; David D. Breshears; Scott R. Saleska	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) EP53A. EP53A. Advances in Experimental Earth Surface Processes II Posters	EP53A-1017. Life on rock. Scaling down biological weathering in a new experimental design at Biosphere-2 Dragos G. Zaharescu; Katerina Dontsova; Carmen I. Burghelea; Jon Chorover; Raina Maier; Julia N. Perdrial	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) EP53C. EP53C. Climate Change and Landscape Response III Posters	EP53C-1056. Interpreting climate-driven aggradation and incision along the fringes of a decaying mountain range Abigail Langston; Gregory E. Tucker; Robert S. Anderson; Melissa A. Foster; Suzanne P. Anderson	Boulder Creek
1:40 - 6:00 PM	Hall A-C (Moscone South) H53I. H53I. Understanding Process Dynamics in the Critical Zone at Different Scales II Posters	H53A-1513. Quantifying the influence of deep soil moisture on ecosystem albedo: the role of vegetation Zulia M. Sanchez-Mejia; Shirley A. Papuga	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H53I. H53I. Understanding Process Dynamics in the Critical Zone at Different Scales II Posters	H53I-1644. Hydrology Simulations on Basalt Soil for the Landscape Evolution Observatory (LEO) Christina M. Hernandez; Marcel G. Schaap	Arizona

1:40 - 6:00 PM	Hall A-C (Moscone South) H53I. H53I. Understanding Process Dynamics in the Critical Zone at Different Scales II Posters	H53I-1650. Toward an improved understanding of the role of transpiration in critical zone dynamics Bhaskar Mitra; Shirley A. Papuga	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H53I. H53I. Understanding Process Dynamics in the Critical Zone at Different Scales II Posters	H53I-1651. Rare earth elements as reactive tracers of biogeochemical weathering in the Jemez River Basin Critical Zone Observatory Angelica Vazquez; Julia N. Perdrial; Adrian A. Harpold; Xavier Zapata; Craig Rasmussen; Jennifer C. McIntosh; Marcel G. Schaap; Jon D. Pelletier; Mary Kay Amistadi; Jon Chorover	Arizona
1:40 - 6:00 PM	Hall A-C (Moscone South) H53I. H53I. Understanding Process Dynamics in the Critical Zone at Different Scales II Posters	H53I-1654. Poster presentation Into the deep: using stable isotopes of trees to examine groundwater dynamics in bedrock outcrops Breanna Skeets, Christopher Crosby, Holly R. Barnard:	Boulder Creek
1:55 - 2:10 PM	3016 (Moscone West) H52C. H52C. Theoretical, Numerical, and Experimental Advances in Pore Scale Investigation of Porous Media II	H53M-02. Evaluation of a Lattice Bolzmann Model with Realistic Equations of State for Capillary Trapping of CO2 at the Pore-Scale Marcel G. Schaap; Dorthe Wildenschild	Arizona
1:55 - 2:10 PM	310 (Moscone South) V53F. V53F. Earth Materials at the Mesoscale: Nature and Processes II: Cosponsored by MSA	V53F-02. Using Neutron Scattering to Understand How Porosity opens in Weathering Rocks to Form Regolith *(Invited)* Susan L. Brantley; Ekaterina Bazilevskaya; Lixin Jin; Gernot Rother; David R. Cole; Alexis Sitchler; Xin Gu	Susquehanna/ Luquillo
2:00 - 2:15 PM	3014 (Moscone West) H53L. H53L. Ecohydrology of Tropical Forests: Processes, Feedbacks, and Change II	H53L-02. The sources of water transpired by mahogany species along elevational, topographic, and moisture gradients in southwestern and northeastern Puerto Rico Jaivime A. Evaristo; Frederick N. Scatena	Luquillo
4:00 - 4:15 PM	3020 (Moscone West) H54D. H54D. Landscape System Response Under Change II	H54D-01. Wildfire and hillslope aspect impacts on subsurface hydrologic response Brian A. Ebel	Boulder Creek
4:00 - 4:20 PM	3014 (Moscone West) H54B. H54B. Ecohydrology of Tropical Forests: Processes, Feedbacks, and Change III	H54B-01. Ecohydrology of the Luquillo Mountains of Northeast Puerto Rico *(Invited)* Frederick N. Scatena	Luquillo
4:20 - 4:35 PM	3014 (Moscone West) H54B. H54B. Ecohydrology of Tropical Forests: Processes, Feedbacks, and Change III	H54B-02. The Relative Importance of Convective and Trade-wind Orographic Precipitation to Streamflow in the Luquillo Mountains, Eastern Puerto Rico Martha A. Scholl; James B. Shanley; Marcie Occhi; Frederick N. Scatena	Luquillo
5:00 - 5:15 PM	3003 (Moscone West) GC54A. GC54A. Spatiotemporal Change Detection and the Data Infrastructure of Environmental Observatories IV	GC54A-05. Critical Zone Observatories (CZOs): Integrating measurements and models of Earth surface processes to improve prediction of landscape structure, function and evolution (Invited) Jon Chorover; Suzanne P. Anderson; Roger C. Bales; Christopher Duffy; Frederick N. Scatena; Donald L. Sparks; Timothy White	Christina R. Basin/ Susquehanna/ Southern Sierra/Arizona