

Shirley Anne Papuga

formerly Shirley Anne Kurc

Curriculum Vitae, June 2011

Assistant Professor, University of Arizona
School of Natural Resources and the Environment
325 BSE, P.O. Box 210043
Tucson, AZ 85721-0043

Voice: (520) 621 - 3803
Fax: (520) 621 - 8801
Email: papuga@email.arizona.edu
<http://www.cals.arizona.edu/research/papuga/>

EDUCATIONAL BACKGROUND

- 2006 Ph.D. **Geological Sciences** University of Colorado -- Boulder, Colorado
Thesis Advisor: *Eric E. Small (University of Colorado)*
Title: *Dynamics and Controls of Ecosystem Scale Water, Carbon, and Energy Cycling at Semiarid Grassland and Shrubland*
- 1998 B.A. *Cum Laude* **Mathematics** Kalamazoo College – Kalamazoo, Michigan
Thesis Advisors: *David Breshears (Los Alamos National Lab), John Fink (Kalamazoo College)*
Title: *Hillslope Runoff through Grids of Patchy Vegetation: Predictions Using Modified Percolation Theory*

PROFESSIONAL EXPERIENCE

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|----------------------------------|--|-------------------|
| Joint Assistant Professor | University of Arizona , Tucson, AZ
<i>Department of Hydrology and Water Resources</i> | 01/2009 – present |
| Joint Assistant Professor | University of Arizona , Tucson, AZ
<i>Department of Soil, Water and Environmental Science</i> | 01/2008 – present |
| Assistant Professor | University of Arizona , Tucson AZ
<i>School of Natural Resources and the Environment</i> | 01/2007 – present |
| Post Doctoral Researcher | University of Michigan , Ann Arbor, MI
<i>School of Natural Resources (with Dr. David Ellsworth)</i> | 08/2006 – 10/2006 |
| Research Assistant | University of Colorado , Boulder, CO
<i>Department of Geological Sciences (with Dr. Eric Small)</i> | 08/2002 – 08/2006 |
| Research Assistant | New Mexico Tech , Socorro, NM
<i>Department of Earth and Environmental Science (with Dr. Eric Small)</i> | 08/2000 – 08/2002 |
| Research Assistant | University of Virginia , Charlottesville, VA
<i>Department of Environmental Sciences (with Dr. John Albertson)</i> | 08/1998 – 08/2000 |
| Graduate R A | Los Alamos National Lab , Los Alamos, NM
<i>Earth and Environmental Science (with Dr. David Breshears)</i> | 05/1998 – 08/1998 |
| Undergraduate RA | Los Alamos National Lab , Los Alamos, NM
<i>Earth and Environmental Science (with Dr. David Breshears)</i> | 08/1997 – 12/1997 |

TEACHING EXPERIENCE: COURSES

Fall 2010 - 2011	Watershed Hydrology (with Lab) WS M460/560, University of Arizona	Instructor
Fall 2007-2011	Air and Water: Physics of Environmental Fluids WS M 402/502, University of Arizona	Instructor
Spring 2011	Soil Physics SWES 470/570, University of Arizona	Guest Lecturer
Spring 2008-2011	Using MATLAB® for Environmental Data Processing WS M 696M, University of Arizona	Instructor
Spring 2008	Practical and Applied Hydrometeorology WS M 696Q, University of Arizona	Instructor

Spring 2007	Advanced Watershed Hydrology WS M 467/567, University of Arizona	Guest Lecturer
Spring 2007	Advanced Topics in Hydrology-Biochemistry Interactions HWR 696B, University of Arizona	Guest Instructor
Fall 2005	Introduction to Physical Geology University of Colorado	Teaching Assistant
Spring 2000	Physical Hydrology University of Virginia	Teaching Assistant
Spring 1999	Environmental Fluid Mechanics University of Virginia	Teaching Assistant

TEACHING EXPERIENCE: ADVISEES

PHD STUDENTS *for whom I serve(d) as the major advisor:*

Andrew Neal		Expected Dec. 2011
	Thesis: <i>Spatial and Temporal Sensitivity of Ecohydrological Fluxes in Pulse-Driven Dryland Ecosystems</i>	
Daniel Bunting	<u>NSF – GRFP Fellow</u>	Expected May 2012
	Thesis: <i>Management and Restoration Practices in Water-Limited Regions</i>	
Zulia Sánchez-Mejía	<u>CONACyT fellow</u>	Expected Dec. 2012
	Thesis: <i>Monsoon Dependent Ecosystems: Feedback of Larrea tridentata in Land-Atmosphere Interactions</i>	
Zackry Guido		Expected May 2014
	Thesis: <i>Water Resource Management in Developing Countries: Climate Change Adaptation Strategies</i>	

MASTERS STUDENTS *for whom I serve(d) as the major advisor:*

Krystine Nelson		Expected Dec. 2011
	Thesis: <i>Influence of Snow Cover Duration on Soil Respiration & Evaporation in Mixed-Conifer Ecosystems</i>	
Daniel Bunting	<u>NSF – GRFP Fellow</u>	May 2010
	Thesis: <i>Using Existing Agricultural Infrastructure for Restoration Practices: Factors Influencing Successful Establishment of Cottonwood over Tamarisk</i>	
	Currently working toward his PhD.	
Michelle Cavanaugh	<u>Peace Corps Fellow</u>	May 2009
	Thesis: <i>Evapotranspiration Partitioning in Semiarid Creosotebush Dominated Ecosystems: Climate Change Implications of Soil Moisture Control on Shrubland Transpiration</i>	
	Currently employed at: <i>USDA-ARS Southwest Watershed Research Center, Tucson, AZ</i>	
Lisa Benton	<u>USDA Ecohydrology Fellow</u>	May 2009
	Thesis: <i>Automated Repeat Digital Photography for Continuous Phenological Monitoring: An Analysis of Flowering in a Semiarid Shrubland</i>	
	Currently employed at: <i>Lower Colorado River Authority, Austin, TX</i>	
Jonathan Martin		May 2009
	Thesis: <i>Effects of Increased Housing Density on Riparian Microclimates along Ephemeral Streams</i>	
	Currently employed at: <i>Dudek Environmental Engineering and Consulting, San Diego, CA</i>	

UNDEGRADUATE STUDENTS *for whom I serve(d) as the major advisor on a research project:*

Fiona Lowry	<u>B2 NSF REU</u>	June 2011 – Aug. 2011
	Project: <i>The Hydrologic Cycle and Ecosystem Phenology</i>	
Grace John	<u>B2 NSF REU</u>	June 2010 – Aug. 2010
	Project: <i>Using Digital Photography to Identify the Impact of the Timing of Spring Snow Melt on Summer Soil Respiration</i>	
Krystine Nelson		Aug. 2009 – June 2010
	Project: <i>Using Time-Lapse Digital Photography to Monitor Changes in the Critical Zone</i>	

Joseph Miller

Jan. 2010 – Dec. 2010

Project: *Impacts of Housing Density on the Microclimate of Urban Ephemeral Streams*

Rene Aguilera Sevilleta LTER REU

May 2007 – Aug. 2007

Project: *CO2 Fluxes Following Simulated Monsoon Rain Events*

GRADUATE STUDENT COMMITTEES

Abd Salam El Vilaly	PhD	Arid Land Resources Sci	Univ. Arizona, Tucson, AZ	(current)
Hazel Cox	PhD	Soil, Water, & Env Sci	Univ. Arizona, Tucson, AZ	(current)
Caitlin Orem	PhD	Geosciences	Univ. Arizona, Tucson, AZ	(current)
Lubna Al Qaryouti	MS	Watershed Mgt & Ecohyd	Univ. Arizona, Tucson, AZ	2011
Juan Camilo Villegas	PhD	Watershed Mgt & Ecohyd	Univ. Arizona, Tucson, AZ	2010
Brendan Yuill	PhD	Watershed Mgt & Ecohyd	Univ. Arizona, Tucson, AZ	2009
Patrick Royer	MS	Watershed Mgt & Ecohyd	Univ. Arizona, Tucson, AZ	2009

PROFESSIONAL PUBLICATIONS

◆ indicates a student for whom I serve(d) as the major advisor

* indicates a student for whom I serve(d) on the committee

Peer-Reviewed Manuscripts:

- ◆ Bunting, D.P., **S.A. Kurc**, M.R. Grabau, Using existing agricultural infrastructure for restoration practices: Factors influencing successful establishment of *Populus fremontii* over *Tamarix ramosissima*, *in press at Journal of Arid Environments*.
- ◆ Cavanaugh, M.L., **S. A. Kurc**, and R.L. Scott, Evapotranspiration partitioning in semiarid shrubland ecosystems: a two-site evaluation of soil moisture control on transpiration, *in press at Ecohydrology*.
- ◆ Neal, A. L., Gupta, H. V., **Kurc, S. A.**, and Brooks, P. D.. (2011). Modeling moisture fluxes using artificial neural networks: can information extraction overcome data loss?, *Hydrol. Earth Syst. Sci.*, 15, 359-368, doi:10.5194/hess-15-359-2011.
- Jardine, K., Abrell, L., **Kurc, S. A.**, Huxman, T., Ortega, J., and Guenther, A.. 2010. Volatile organic compound emissions from *Larrea tridentata* (creosotebush), *Atmos. Chem. Phys.*, 10, 12191-12206, doi:10.5194/acp-10-12191-2010.
- *Royer, P. D., D. D. Breshears, C. B. Zou, N. S. Cobb, and **S. A. Kurc**. (2010) Ecohydrological energy inputs in semiarid coniferous gradients: Responses to management- and drought-induced tree reductions, *Forest Ecology and Management* 260(10):1646-1655.
- Kurc, S.A.**, ◆Benton, L.M., (2010) Digital image-derived greenness links deep soil moisture to carbon uptake in a creosotebush-dominated shrubland, *Journal of Arid Environments* Volume 74, Issue 5, May 2010, Pages 585-594.
- Kurc, S.A.** and E.E. Small (2007), Soil moisture control on ecosystem scale fluxes of water and carbon in semiarid grassland and shrubland, *Water Resources Research* 43(6): W06416, doi:10.1029/2006WR005011.
- Turner, D.P., Ritts, W.D., Zhao, M., **Kurc, S.A.**, Dunn, A.L., Wofsy, S.C., Small, E.E., and S.W. Running (2006), Assessing interannual variation in MODIS-based estimates of gross primary production. *IEEE Transactions on Geoscience and Remote Sensing* 44(7): 1899 - 1907.
- Turner, D.P., Ritts W.D., Cohen W.B., Maeirsperger T.K., Gower S.T., Kirschbaum A.A., Running S.W., Zhao M.S., Wofsy S.C., Dunn A.L., Law B.E., Campbell J.L., Oechel W.C., Kwon H.J., Meyers T.P., Small E.E., **Kurc S.A.** and J.A. Gamon (2005), Site-level evaluation of satellite-based global terrestrial gross primary production and net primary production monitoring, *Global Change Biology*, 11(4): 666-684.

- Kurc, S.A.** and E.E. Small (2004), Dynamics of evapotranspiration in semiarid grassland and shrubland during the summer monsoon season, central New Mexico, *Water Resources Research*, 40, W09305, doi:10.1029/2004WR003068.
- Small, E., and **S. Kurc** (2003), Tight coupling between soil moisture and the surface radiation budget in semiarid environments: Implications for land-atmosphere interactions, *Water Resources Research*, 39(10), 1278, doi: 10.1029/2002WR001297.

Other Scholarly Publications:

- Papuga, S.** (2010). Supporting Generation “E”: Teaching and Research is Not Enough. *The Journal of Sustainability Education*. October, 2010.
http://www.journalofsustainabilityeducation.org/wordpress/content/supporting-generation-%E2%80%9Ce%E2%80%9D-teaching-and-research-is-not-enough_2010_10/
- (Kurc) Papuga, S.A.** (2009), Highlight FLUXNET site Santa Rita Creosotebush, *FluxLetter: The Newsletter of FLUXNET*, Vol. 2 No. 4, December, 2009.
- Kurc, S. A.** (2008), Extreme makeovers: Crossing critical thresholds into desertification, *Arid Lands Newsletter*, 60, ISSN: 0277-9455, E-ISSN: 1092-5481.
- Small, E. E. and **Kurc, S.** (2001). The influence of soil moisture on the surface energy balance in semiarid environments. *New Mexico Water Resources Research Institute Technical Completion Report No. 318*.

Manuscripts in Review:

- Chorover, J., P. Troch, C. Rasmussen, P. Brooks, J. Pelletier, D. Breshears, T. Huxman, K. Lohse, J. McIntosh, T. Meixner, **S.A. Kurc**, M. Schaap, M. Litvak, J. Perdrial, A. Harpold, and M. Durcik. Jemez River Basin – Santa Catalina Mountains (JRB-SCM) Critical Zone Observatory: Probing how water, carbon, and energy drive landscape evolution and surface water response, *in review at Vadose Zone Hydrology*.

Manuscripts in Revision:

- ✦ Royer, P.D., Breshears, D.D., Zou, C.B., ✦ Villegas, J.C., Cobb, N.S., and **Kurc, S.A.**, Density-dependent ecohydrological effects of piñon-juniper evergreen woody plants: soil microclimate and potential soil evaporation trends, *in revision for Rangeland Ecology and Management*.
- ◆ Martin, J., **Kurc, S.A.**, Zaines, G., Crimmins, M., Greene, D., and Hutmacher-Glancy, A., Elevated air temperatures in riparian ecosystems along ephemeral streams: the role of housing density, *rejected from Ecosystems, now in prep for Journal of Arid Environments*.
- ◆ Benton, L.M., **Kurc, S.A.** and ◆ Nelson, K. Automated repeat digital photography for continuous monitoring of shrubland flowering phenology, *rejected from Global Change Biology and New Phytologist, now in prep for International Journal of Biometeorology*.
- Kurc, S. A.** and Small, E.E. Simple ecohydrologic models in drylands: comparison to observations of water and carbon fluxes, *in revision for Advances in Water Resources*.

HONORS/AWARDS

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| ▪ UA School of Natural Resources and the Environment “Outstanding Scholarly Achievement” Award | 2011 |
| ▪ Nominated for the College of Ag and Life Sciences A+ Advisor Award | 2010 |
| ▪ Santa Fe Institute Global Sustainability Summer School | 2010 |
| ▪ Wakonse Teaching Fellow | 2008 |
| ▪ Bill Hiss Creativity Travel Award | 2002, 2003, 2005 |
| ▪ Jeffrey Dean Memorial Scholarship for Outstanding Graduate Students | 2004 |

- Sevilleta Graduate Student Summer Research Grant 2002, 2003, 2004
- University of Virginia Travel Support Award 1999

PROFESSIONAL SERVICE AND OUTREACH (since 2007)

Educational Participation:		
Core Faculty	<i>Hydrometeorology Program</i> University of Arizona	2010 - present
Faculty Mentor	<i>NSF Research Experience for Undergraduates</i> B2 Earthscience , Sevilleta Long Term Ecological Research Program	2010, 2007
Affiliated Faculty	<i>Global Change Graduate Interdisciplinary Program</i> University of Arizona	2010-present
Resource Person	<i>NSF Graduate Research Fellowship Program</i> University of Arizona Representative	2008-present
Faculty Participant	<i>Amazon-PIRE</i> international partnership between scientists in the U.S. and in Brazil	2008-present
Affiliated Faculty	<i>Arid Lands Resource Sciences Graduate Interdisciplinary Program</i> University of Arizona	2007-present
Proposal Reviews:		
Panel Member	<i>NSF GRFP Review Panel</i>	2008/09/10/11
Reviewer	Review proposals for the following NSF areas: <i>NSF Hydrological Sciences; NSF Geomorphology; NSF Career; NSF IRES</i>	2007 - present
Reviewer	Review proposals for the following DOE areas: <i>NICCR Southeastern Region</i>	2009
Reviewer	Review proposals for the following UA areas: <i>UA Agricultural Experiment Station Projects (2008), ISPE Student Travel Grants (2010), Institute of the Environment Faculty Small Grant (2010,2011), Office for Vice President for Research Faculty Seed Grants Program (2011)</i>	2008-present
Manuscript Reviews:		
Reviewer	Review Manuscripts for the following journals: <i>Advances in Water Resources; Hydrological Processes; Journal of Applied Remote Sensing; Restoration Ecology; Functional Ecology; Journal of Geophysical Research – Atmospheres; Global Change Biology Journal; Journal of Geophysical Research – Biogeosciences; Tree Physiology; Geophysical Research Letters; Water Resources Research; Remote Sensing of the Environment; Oecologia; Agricultural and Forest Meteorology; Remote Sensing; Rangeland Ecology & Management; Restoration Ecology</i>	2007 - present
Meeting/Workshop Organization:		
Co-Convener and Session Co-Chair	<i>American Geophysical Union Fall Meeting Session: Scaling and Feedbacks Among Water, Life, & Landforms</i>	2011
Session Convener	<i>All Hands Meeting of the Critical Zone Observatories: Ecosystem Exchange and Hydrologic Partitioning</i>	2010
Co-Convener and Session Co-Chair	<i>American Geophysical Union Fall Meeting Session: Ecosystem Resilience to Changing Climate Patterns: The Role of Hydrology</i>	2008

University Committees:

Committee Member	<i>Natural Resource Studies Program Committee</i>	2008-present
Committee Member	University of Arizona - School of Natural Resources <i>Assistant Professor in Phenoclimatology Search Committee</i>	2010
Committee Member	University of Arizona - School of Natural Resources and Environment <i>Curriculum and Instruction Committee</i>	2009-2010
Co-Chair	University of Arizona - School of Natural Resources <i>SNR – Brown Bag Seminar Series</i>	2009
Committee Member	University of Arizona - School of Natural Resources <i>SNR – Futures Task Force Committee</i>	2007-2008

Collaborative Participation:

Faculty Participant	<i>Progress, Challenges, and Priorities in Predicting the Water Cycle in Complex Terrain Workshop</i> , organized by the Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA) Center, the National Center for Atmospheric Research (NCAR), and UA Biosphere 2	2011
Faculty Participant	<i>Climate Dynamics and Hydrometeorology Center</i> University of Arizona	2008 - present
Participant	<i>AmeriFlux Network</i> coordination of regional and global observations from micrometeorological tower sites	2008 - present
Faculty Participant	<i>Institute of the Environment</i> University of Arizona	2007 - present
Technical Advisor	TERRA Resource Development International, N.G.O.	2006 - present
Faculty Participant	<i>NSF's Science and Technology Center SAHRA: Sustainability of semiArid Hydrology and Riparian Areas</i>	2007 - present
Faculty Associate	NSF's Sevilleta LTER	2007 - present

Membership:

Member	American Association for the Advancement of Science	2010 - present
Member	American Geophysical Union	1998 - present
Member	Ecological Society of America	2008 - 2009

Volunteer:

Transect Leader	<i>Tucson Bird Count</i>	2007 - present
Panel Member	Arizona Public Interest Research Group (PIRG) – “Substance and Sustainability” Panel	2009
Judge	<i>Saints Peter and Paul Catholic School Science Fair</i>	2008, 09, 10
Admissions	<i>Energy and Sustainability EXPO, Tucson AZ</i>	2009

RESEARCH GRANTS**Funded:**

2010 (1 yr)	University of Arizona – WSP Competitive Category 1 Grant <i>The Santa Rita Creosote Site: Representing Water, Carbon, and Energy Cycling in Arizona, the Southwestern US, and Water-Limited Ecosystems Worldwide (Papuga is sole PI)</i>	\$4,651
2010 (1 yr)	University of Arizona -- VPR Faculty Small Grant <i>Water resource adaptation strategies in developing countries: climate change “realities” (Papuga is sole PI)</i>	\$9,150

2009 (5 yrs)	National Science Foundation – Critical Zone Observatory <i>Transformative behavior of energy, water, and carbon in the critical zone: an observatory to quantify linkages among ecohydrology, biogeochemistry, and landscape evolution (with J. Chorover, P. Troch, P. Brooks, C. Rasmussen, J. Pelletier, T. Huxman, K. Lohse, J. McIntosh, D. Breshears, T. Meixner, M. Schaap)</i>	\$4,500,000
2009 (1 yr)	University of Arizona - Institute of the Environment <i>Ecological implications of climate change in dryland ecosystems: sensitivity of carbon uptake to intra-annual variability of plant available moisture (Papuga was sole PI)</i>	\$10,000
2008 (1 yr)	TRIF-Water Sustainability Program <i>Fingerprinting water: Tracking flow paths and residence times from mountain catchment to aquifer extraction in the Tucson Basin (with P. Troch, J. Chorover, P. Brooks, C. Rasmussen, J. Pelletier, T. Huxman, J. McIntosh, D. Breshears, T. Meixner, M. Schaap, D. Goodrich, C. Unkrich)</i>	\$50,000
2008 (2 yrs)	Department of Interior – Bureau of Reclamation <i>Restoration of managed marsh units to benefit California black rails and other marsh birds: an adaptive management approach (with C. Conway)</i>	\$327,401
2007 (2 yrs)	University of Arizona – Agricultural Experiment Station <i>Vegetation controls on water, energy, and carbon cycling in water-limited ecosystems (Kurc was sole PI)</i>	\$6,000

Pending:

2011 (5 yrs)	National Science Foundation – Frontiers in Earth System Dynamics <i>Scaling and feedbacks among energy, water, carbon, and geology (with J. Pelletier, P. Troch, B. Enquist, and X. Zeng)</i>	\$4,955,837
2011 (1 yr)	UA Technology and Research Initiative Fund (TRIF), Water, Environmental and Energy Solutions (WEES) <i>Establishment of an Experimental Outdoor Poplar Plantation at Biosphere 2 (with R. Monson, S. Saleska, J. van Haren, K. Jardine, and D. Moore)</i>	\$39,801

PROFESSIONAL PRESENTATIONS (since 2007)

★ indicates an invited presentation

♣ indicates a presentation prepared by a graduate student for whom I serve(d) as the major advisor

♣ indicates a presentation prepared by an undergraduate student for whom I serve(d) as the major advisor

Oral Presentations:

- ★ **Papuga, S. A.** 2010. It's not easy being green: Linking hydrology, phenology, and climate change. Southwest Watershed Research Center Brown Bag Series, USDA-ARS, Tucson, AZ.
- Jardine, K., **Kurc, S.A.**, Guenther, A., Scott, R., Huxman, T., and Abrell, L. 2009. Net ecosystem exchange rates of Carbon Dioxide and Volatile Organic Compounds between the Sonoran Desert and the Atmosphere during the North American Monsoon. GEIA-ACCENT Open Conference Oslo, Norway.
- ★ **Kurc, S. A.** 2009. The nature of the pulse: hydrologic triggers of phenological activity in creosotebush dominated ecosystems. Research Insights in Semiarid Ecosystems Symposium, University of Arizona, Tucson, AZ.
- Kurc, S. 2007. Patience is a virtue and other valuable principles: The Tao of vegetation in dryland ecosystems. School of Natural Resources. Fall Brown Bag Series, University of Arizona, Tucson, AZ.
- ★ **Kurc, S.A.** 2007. How the west was won: An eco-hydrological perspective on woody plant encroachment. NSF ADVANCE Environmental Sustainability Data Blitz, University of Arizona, Tucson, AZ.

- ★ **Kurc, S.A.** 2007. Hydrological triggers of ecological activity: Days in the lives of desert shrubs and grasses. Soil, Water and Environmental Science Fall Colloquia, University of Arizona, Tucson, AZ.
- ★ **Kurc, S.A.** 2007. Dynamics of water, carbon, and energy cycling at semiarid grassland and shrubland. Agricultural and Biosystems Engineering Spring Colloquia, University of Arizona, Tucson, AZ.
- Kurc, S.** and Small, E. 2007. Simple hydro-ecological models: Is root zone average soil moisture an adequate driver in the functions for evapotranspiration and assimilation? AGU Fall Meeting, San Francisco, CA.

Poster Presentations (National or Regional Meetings Only):

- ◆ Nelson, K. and Kurc, S. A., Continuous Monitoring of Dynamic Pulse-Driven Phenological Phases in a Semiarid Shrubland. American Geophysical Union, Fall Meeting 2010, abstract #B23G-0468.
- ◆ Bunting, D. P., Glenn, E. P., Kurc, S. A., Scott, R. L., and Nagler, P. L.. Estimating large-scale evapotranspiration in arid and semi-arid systems: A multi-site study linking MODIS and Ameriflux data. American Geophysical Union, Fall Meeting 2010, abstract #H31B-1000.
- ◆ John, G. P., Papuga, S. A., Wright, C. L., Nelson, K., and Barron-Gafford, G. A.. Investigating the impact of temporal and spatial variation in spring snow melt on summer soil respiration. American Geophysical Union, Fall Meeting 2010, abstract #H33C-1154.
- ◆ Neal, A. L., Kurc, S., and Brooks, P. D.. Environmental Controls on Soil Respiration in Semiarid Ecosystems: The Role of the Vertical Distribution of Soil Moisture. American Geophysical Union, Fall Meeting 2010, abstract #B31B-0290.
- ◆ Sanchez, Z. M. and Kurc, S. A.. Influence of temporal variation in the vertical distribution of soil moisture on the surface radiation budget: Implications for semiarid land-atmosphere interactions. American Geophysical Union, Fall Meeting 2010, abstract #B11D-0390.
- ◆ Bunting, D., M. R. Grabau, M. A. Milczarek, S. A. (Kurc) Papuga, G. Garnett, M. Karpiscak, and D. Quanrud. Factors Influencing Successful Establishment of Cottonwood over Tamarisk. 2010 Tamarisk Symposium. Grand Junction, CO, January 2010.
- Jardine, K.J., Kurc, S.A., Guenther, A.B., Scott, R.L., Huxman, T.E., and Abrell, L. 2009. Volatile Organic Compound Emissions from *Larrea tridentata* (Creosote bush) during the North American Monsoon . AGU Fall Meeting, San Francisco, CA.
- ◆ Neal, A.L., **Kurc, S.A.**, and Brooks, P. 2009. Temporal Sensitivity of Satellite-Based Remote Sensing Products to Rainfall Pulse Events in Dryland Ecosystems. AGU Fall Meeting, San Francisco, CA.
- ◆ Bunting, D., M. R. Grabau, M. A. Milczarek, S. A. Kurc, G. Garnett, M. Karpiscak, and D. Quanrud. Irrigation Regime and Vegetation Density Effects on Success of Riparian Revegetation. 3rd National Conference on Ecosystem Restoration. Los Angeles, CA, July 2009.
- Kurc, S.** and Benton, L. 2008. Identifying Hydrological Triggers of Green-Up in the Resilient and Widespread Creosotebush. AGU Fall Meeting, San Francisco, CA.
- ◆ Neal, A. L., **Kurc, S.A.**, and Huxman, T. 2008. Practical Use of Eddy Covariance in Non-Ideal Landscapes: Pilot Study on a Small, Enclosed Turfgrass Setting. AGU Fall Meeting, San Francisco, CA.
- ◆ Cavanaugh, M., **Kurc, S. A.**, Scott, R., and Bryant, R. 2008. Two-Site Comparison of Transpiration by *Larrea tridentata*. AGU Fall Meeting, San Francisco, CA.
- ◆ Benton, L. and **Kurc, S. A.** 2008. Digital Image Analysis of Flowering in the Repeat-Blooming Creosotebush (*Larrea tridentata*) in Relation to Climatic Factors. AGU Fall Meeting, San Francisco, CA.