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Assistant Professor

Department of Forest, Rangeland, and Watershed Stewardship

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EDUCATION:

University of Washington, Ph.D., 2006

- Department of Civil and Environmental Engineering

University of Nevada, Reno, M.S. Hydrogeology, 2002

- Graduate Program of Hydrologic Sciences

Williams College, Williamstown, MA, B.A., 1998

- Degree with Honors in Geosciences; Concentration in Environmental Studies

PROFESSIONAL EXPERIENCE:

Colorado State University, Assistant Professor, 2007-present

- Watershed Science Program, Department of Forest, Rangeland, and Watershed Stewardship

GRANTS RECEIVED:

Kampf, S.K., P.I. with collaborator J. Lanini. Climate change impacts to hydropower generation in Pacific Northwest river basins. Office of Science (BER), U.S. Department of Energy, Grant No. DE-FG02-08ER64647, September 2008 – August 2011, \$358,929.

Kampf, S.K. J. Klein, J. Baron. Spatial sensor network for monitoring snowmelt, vegetation, and soil moisture dynamics / Loch Vale Watershed, Rocky Mountain National Park. Colorado State University Warner College of Natural Resources Teaching, Research, and Outreach Grants Program, 2009, \$10,280.

Kampf, S.K., P.I. Hydrologic analysis and process-based modeling for the Upper Cache la Poudre Basin, funded by the Colorado Water Institute, 2008-2010, \$55,000.

TEACHING:

- **WR 524:** Modeling Watershed Hydrology. Spring 2007
- **WR 304:** Principles of Watershed Management. Spring 2008
- **WR 416:** Land Use Hydrology. Fall 2008
- **WR 420:** Watershed Practicum. Fall 2007, 2008 with other Watershed Science Faculty
- **WR 440:** Watershed Problem Analysis. Spring 2007 with other Watershed Science Faculty
- **WR 616:** Hillslope Hydrology. Spring 2008, contributor to course instruction

PUBLICATIONS:

- Mirus, B., K. Loague, J. VanderKwaak, S. Kampf, S. Burges, in press. A hypothetical reality of Tarrawarra-like hydrologic response. *Hydrological Processes*.
- Kampf, S.K. and S.J. Burges, 2007a. A framework for classifying and comparing distributed hillslope and catchment hydrologic models. *Water Resources Research*. 43, W05423, doi:10.1029/2006WR005370.
- Kampf, S.K. and S.J. Burges, 2007b. Parameter estimation for a physics-based distributed hydrologic model using measured outflow fluxes and internal moisture states. *Water Resources Research* 43, W12414, doi:10.1029/2006WR005605.
- Dethier, D.P., S.K. Kampf, D.A. Sawyer, J.R. Budahn, 2007. Chemical zonation in the upper Bandelier Tuff: Evidence from the chemistry of distal outcrops, Puye Quadrangle. *New Mexico Geological Society Guidebook*, 58th Field Conference, Geology of the Jemez Mountain Region II, pp. 333-343.
- Dethier, D.P., S.K. Kampf, 2007. Reconstructing pyroclastic flow dynamics and landscape evolution using the upper Bandelier Tuff, Puye Quadrangle, New Mexico. *New Mexico Geological Society Guidebook*, 58th Field Conference, Geology of the Jemez Mountain Region II, pp. 344-353.
- Kampf, S.K. and S.W. Tyler, 2006. Spatial characterization of evaporation and land surface energy fluxes at the Salar de Atacama, Northern Chile using ASTER image classification. *Advances in Water Resources* 29: 336-354.
- Handcock, R.N., Gillespie, A., Cherkauer, K.A., Kay, J.E., Burges, S.J., Kampf, S.K., 2006. TIR remote sensing of stream temperatures at multiple spatial scales. *Remote Sensing of Environment*. 100, pp. 427-440.
- Kampf, S.K., S.W. Tyler, C. Ortiz, J.F. Muñoz, and P. Adkins, 2005. Evaporation and land surface energy budget at the Salar de Atacama, Northern Chile. *Journal of Hydrology* 310, pp. 236-252.
- Kay, J.E., S.K. Kampf, R.N. Handcock, K.A. Cherkauer, A.R. Gillespie, and S.J. Burges, 2005. Accuracy of lake and stream temperatures determined from thermal-infrared imagery. *Journal of the American Water Resources Association*, October, pp. 1161-1175.
- Cherkauer, K.A., S.J. Burges, R.N. Handcock, J.E. Kay, S.K. Kampf, and A.R. Gillespie, 2005. Remote sensing of water temperatures in four Pacific Northwest rivers. *Journal of the American Water Resources Association*, October, pp. 1149-1159.
- Kampf, S.K., M. Salazar, and S.W. Tyler, 2002. Preliminary investigations of effluent drainage from mining heap leach facilities. *Vadose Zone Journal* 1:186-196.

MEETING ABSTRACTS:

- Kampf, S.K. and J. Markus, 2008. Coupling of snow distribution, soil moisture, and vegetation on two subalpine hillslopes. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H24A-04.

- Richer, E., S. Kampf, and S. Fassnacht, 2008. Evaluation of snow cover depletion to support snowmelt runoff prediction for the Cache la Poudre River, Colorado. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H23B-0969.
- Lopez, P., S. Kampf, and K. Elder, 2008. Spatial and temporal variability of hydraulic conductivity on forested mountain hillslopes. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H11C-0781.
- Cristea, N.C., S.K. Kampf, B.B. Mirus, K. Loague, and S.J. Burges, 2008. Developing a framework for testing distributed hydrologic models at the hillslope scale – examples of test model runs for event based and long term simulations. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H11C-0765.
- Mirus, B.B., K. Loague, S.K. Kampf, S.J. Burges, 2007. Physics-based simulation of surface and near-surface hydrologic response for the Tarrawarra catchment: parameterization for a synthetic dataset. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H21A-0169.
- Cristea, N.C., S.K. Kampf, B.B. Mirus, K. Loague, and S.J. Burges, 2007. Developing a framework for testing distributed hydrologic models at the hillslope scale. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H21A-0170.
- Cherkauer, K.A., R. Handcock, J.E. Kay, S.K. Kampf, S.J. Burges, and A.R. Gillespie, 2006. An assessment of thermal infrared remote sensing and its usefulness in determining regional stream temperatures. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H33E-1560.
- Kampf, S.K. and S.J. Burges, 2006. Data and scale of integration considerations in uncertainty assessment for distributed hydrologic models. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H43I-02.
- Kampf, S.K. and S.J. Burges, 2005. Use of an instrumented planar experimental plot to provide guidance for physically-based hydrologic modeling. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H51B-0353.
- Kampf, S.K. and S.J. Burges, 2005. Use of an instrumented planar experimental plot to provide guidance for physically-based distributed hydrologic modeling. *GSA Annual Meeting Abstracts*, Salt Lake City, UT, Oct. 16-19.
- Tyler, S.W., S. Kampf, J. Muñoz, 2005. Measurement and use of playa/saline lake evapotranspiration to constrain basin recharge. *GSA Annual Meeting Abstracts*, Salt Lake City, UT, Oct. 16-19.
- Kampf, S.K. and S.W. Tyler, 2003. Characterization of land surface energy fluxes at the Salar de Atacama, Northern Chile using ASTER image classification. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H42A-1068
- Cherkauer, K.A., R.N. Handcock, J.E. Kay, S.K. Kampf, A.R. Gillespie, and S.J. Burges, 2003. Thermal infrared remote sensing and its usefulness in determining regional stream temperatures. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H22D-0965.
- Handcock, R.N., K.A. Cherkauer, J.E. Kay, S.K. Kampf, A.R. Gillespie, S.J. Burges, 2003. Uncertainty associated with the remote sensing of stream temperatures at multiple spatial scales. *Eos Trans. AGU*, Fall Meet. Suppl., Abstract H12F-08.

Mushkin, A., S. Kampf, A. Gillespie, 2003. Estimating relative micro-topographic surface roughness using remotely-sensed stereo spectral data. *GSA Annual Meeting Abstracts*, Seattle, WA, Nov. 2-5.

Adams, A., S. Kampf, R. Lee, C. Lin, T. Rynders, and S. Tyler, 2002. Balancing ecological and human water demands in arid regions: lessons from the Atacama Desert of Northern Chile. *GSA Annual Meeting Abstracts*, Denver, CO, Oct. 27-30.

Kampf, S.K., S.W. Tyler, S.F. Menz, C.O. Astete, and J.F. Muñoz, 2001. Development of ground and remotely based evaporation measurements at the Salar de Atacama, Northern Chile. *Eos Trans. AGU*, 82(47), Fall Meet. Suppl., Abstract H21C-0318.

Tyler, S.W. and S.K. Kampf, 2001. Hydrology and surface energy budget at the Salar de Atacama, Chile. *GSA Annual Meeting Abstracts*, Boston, MA, Nov. 1-10.

FELLOWSHIPS, HONORS:

National

- Fulbright Student Fellowship, 1998-1999
- NASA Earth System Science Fellowship, 2001-2004
- P.E.O. Scholar Award, 2005-2006 academic year
- AGU Hydrology Section, outstanding student paper, Fall 2006

University of Washington

- College of Engineering Outstanding Teaching Assistant, 2005
- College of Engineering Osberg Family Trust Fellowship, Spring 2005
- Society of Women Engineers Outstanding Female in Civil and Environ. Engineering, 2005

University of Nevada, Reno

- Outstanding M.S. Student, Graduate Program for Hydrologic Sciences, 2002

AFFILIATIONS:

American Geophysical Union, Geological Society of America, American Water Resources Association, Sigma Xi

REVIEWING:

National Science Foundation, Water Resources Research, Journal of Hydrology, Journal of Hydrometeorology, Hydrological Processes, Ecohydrology, Climatic Change, Journal of Water Resources Planning and Management, Restoration Ecology, Journal of the American Water Resource Association

GRADUATE STUDENT ADVISEES:

Eric Richer, M.S. Watershed Science, started Fall 2007

Pedro Lopez, M.S. Watershed Science, started Fall 2007