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EDUCATION

- 2009 Ph.D. Civil Engineering, University of Idaho.
Dissertation: An assessment of measurements and modeling of turbulent fluxes over snow by eddy covariance at two complex mountain sites.
- 2001 M.S. Forest Engineering, Oregon State University.
Dual Major: Forest Hydrology & Civil Engineering
Thesis: Design and evaluation of three stream simulation culverts in South Central Oregon.
- 1995 B.S. Civil & Environmental Engineering, University of Michigan.
Concentration: Hydraulics & Hydrology

PROFESSIONAL AND RESEARCH EXPERIENCE

- 2009-present Research Hydrologist, Post-Doctoral Researcher, USDA-ARS, Boise, Idaho.
- 2009-present Affiliate Professor, Civil Engineering, University of Idaho, Moscow, Idaho.
- 2008-2009 Water Resources Engineer, DHI Water & Environment, Boise, Idaho.
- 2004-2008 Graduate Research Assistant, University of Idaho, Boise, Idaho.
- 2001-2004 Hydrologist, Fremont-Winema National Forest, Paisley, Oregon.
- 1999-2001 Graduate Research Assistant, Oregon State University, Corvallis, Oregon.
- 1998-1999 Assistant Surveyor, Antarctic Support Services, South Pole, Antarctica.
- 1998-2001 Hydrologist, Fremont National Forest, Paisley, Oregon.
- 1996-1998 Environmental & Sanitation Engineer, Peace Corps, Dominican Republic.

AWARDS

- 2007-2008 University of Idaho Presidential Doctoral Research Fellowship
- 2007 DeVlieg Foundation Education Enhancement Award
- 2006-2007 Ph.D. Scholar Award sponsored by the National Science Foundation Idaho EPSCoR Program

PUBLICATIONS

Reba, M. L., T. E. Link, D. Marks, and J. Pomeroy, 2009, An assessment of corrections for eddy covariance measured turbulent fluxes over snow in mountain environments, *Water Resources Research*, **45**, W00D38, doi:10.1029/2008WR007045.

Reba, M., D. Marks, T. Link, J. Pomeroy. 2009. Inter-annual comparison of measured turbulent fluxes over snow at a wind-sheltered and wind-exposed site using eddy covariance. In: IAHS Publication 326, Center for Ecology and Hydrology, Wallingford, Oxfordshire.

Marks, D., M. Reba, J. Pomeroy, T. Link, A. Winstral, G. Flerchinger and K. Elder, 2008. Comparing simulated and measured sensible and latent heat fluxes over snow under a pine canopy. *Journal of Hydrometeorology*, **9**, 1506-1522 (doi:10.1175/2008JHM874.1).

PUBLICATIONS IN PREPARATION

Reba, M., D. Marks, J. Pomeroy, and T. E. Link. In preparation: Validating sublimation losses from snow at a wind-exposed and a wind-sheltered site in a mountain catchment using eddy covariance. To be submitted: Hydrology & Earth Systems Science (HESS).

Reba, M., D. Marks, T. E. Link, J. Pomeroy, and A. Winstral. In preparation: Evaluation of measured and simulated turbulent components of an existing and modified snow cover energy balance model. To be submitted: Hydrological Processes.

INVITED PRESENTATIONS

Reba, M. 2007. Canopy effects on the turbulent components of the snow cover energy balance. June 5, 2007. Environmental Systems Science Center (ESSC), University of Reading, Reading, England.

Reba, M., 2005. Vegetation and terrain influence on snowmelt energetics in semi-arid rangelands. Seminar (RNGE 501): Frontiers in Forest and Rangeland Ecosystems. September 15, 2006. University of Idaho, Moscow, ID.

TEACHING

Turbulence Theory and Measurement (CE597), 2 cr. Developed and taught.
Watershed Science and Management (FOR462), 3 cr. Web-based teaching assistant and guest lecturer.

PROFESSIONAL ACTIVITIES

Session Co-Convener (co-convener: Danny Marks, USDA-ARS), AGU Poster Session. Cold Regions Hydrology II: Snow Hydrology Posters, 2007 Fall Meeting.

Participant, Pathways to Environmental Sustainability. Istituto Veneto di Scienze, Lettere ed Arti, Venice, Italy. June 8 – June 16, 2007.

Participant, Geophysical Turbulence and Boundary Layers: nature, theory, and role in Earth's Systems, University of Helsinki and Finnish Meteorological Institute, Helsinki, Finland. May 27 – June 1, 2007.

Session Co-Convener (co-convener: William Massman, USFS), AGU Special Oral Session on Eddy Covariance measurements over snow, 2006 Fall Meeting.

Participant, Ameriflux Annual Science Meeting, Boulder, CO, October 16-18, 2006.

Participant, Workshop on Flux Measurements in Difficult Conditions, (NCAR) Boulder, CO, January 26-28, 2006.

Participant, Ameriflux Annual Science Meeting, Boulder, CO, October 18-20, 2005.

Session Co-Convener (co-convener: Danny Marks, USDA-ARS), AGU Special Session on snow measurements and modeling, 2005 Fall Meeting.

Participant, Troubled Water: Exploring Solutions for the Western Water Crisis, Boise, ID, 2005.

Officer, Joint AWRA/AIH OSU Campus Chapter, 1999-2000

Officer, International Association of Hydraulic Engineering and Research, 2005-present

PROFESSIONAL AFFILIATIONS

American Geophysical Union

American Water Resources Association

International Association of Hydraulic Engineering and Research

Society of Women Engineers

Geological Society of America

RESEARCH INTERESTS

Water resources modeling, eddy covariance measurements & modeling, Global climate change, Snow hydrology (focus on turbulent fluxes and radiation), Energy balance modeling, Interactions of vegetation and hydrologic processes, Ecohydraulic design of engineering structures, Interactions of forest management and hydrology, Erosion and soil loss.

PRESENTATIONS & PUBLISHED ABSTRACTS

Reba, M., Marks, D., Link, T., Pomeroy, J., and Winstral, A. 2007. Evaluation of measured and simulated turbulent components of a snowcover energy balance model., *Eos, Transactions of the American Geophysical Union*, 88(52), Fall Meeting Supplement, Abstract C34A-07.

Marks, D., Winstral, A., Pomeroy, J., Nayak, A., and Reba, M. 2007. Terrain and forest shelter effects on snowcover energetics, patterns of snow deposition, snowmelt and runoff over a semi-arid mountain catchment., *Eos, Transactions of the American Geophysical Union*, 88(52), Fall Meeting Supplement, Abstract C21B-0466.

Reba, M., Marks, D., Link, T. Pomeroy, J. 2007. A review of post-processing of eddy covariance (EC) measurements over snow in complex terrain. *Environmental Sensing Symposium*, Boise State University.

Reba, M., D. Marks, T. E. Link and J. Pomeroy. 2006. Sub-canopy radiant energy during snowmelt in uniform and non-uniform forests spanning a latitudinal transect, *Eos, Transactions of the American Geophysical Union*, 87(52), Fall Meeting Supplement, Abstract C12A-08.

Link, T. E., R. Essery, J. P. Hardy, D. Marks, J. Pomeroy, M. Reba, and J. E. Sicart. 2006. A comparison of measured and modeled turbulent fluxes over snow based on site characteristics, *Eos, Transactions of the American Geophysical Union*, 87(52), Fall Meeting Supplement, Abstract C21B-1144.

Reba, M., D. Marks, T. E. Link and A. Winstral. 2005. Comparison of estimation methods to determine turbulent fluxes over snow in a mountainous forested environment, *Eos, Transactions of the American Geophysical Union*, 86(52): F431.

Link, T. E., M. Reba, R. Essery, J. P. Hardy, D. Marks, and J. Pomeroy. 2005. Small-scale spatial variability of sub-canopy radiant energy during snowmelt in deciduous and coniferous forest patches, *Eos, Transactions of the American Geophysical Union*, 86(52): F432.

Reba, M., D. Marks, T. E. Link, and A. Winstral. 2004. Eddy covariance(EC) over snow in a mountainous environment to determine sensible and latent heat and mass fluxes, *Eos, Transactions of the American Geophysical Union*, 85(47): F446.

Essery, R. E., D. Marks, J. Pomeroy, R. Granger, M. Reba, N. Hedstrom, T. E. Link, A. Winstral. 2004. Variations in below canopy turbulent flux from snow in North American mountain environments, *Eos, Transactions of the American Geophysical Union*, 85(47): F450.