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PROFESSIONAL EXPERIENCE:

- 2017 Associate Scientist III, National Center of Atmospheric Research, Boulder, Colorado.
Supervisor: Dr. Gordon Bonan, (303) 497-1613.
- 2012 Professional Research Assistant, Department of Geography/INSTAAR,
University of Colorado.
Supervisor: Professor Peter Blanken, (303) 492-8310.
- 2008 Associate Scientist III, National Center of Atmospheric Research, Boulder, Colorado.
Supervisors: Dr. Jielun Sun, (303) 497-8994 and Dr. Britt Stephens, (303) 497-1018.
- 2003 Professional Research Assistant, Department of Ecology and Evolutionary Biology,
University of Colorado.
Supervisor: Professor Russell Monson, (303) 492-6319.
- 1999 Associate Scientist II, National Center of Atmospheric Research, Boulder, Colorado.
Supervisor: Dr. Jielun Sun, (303) 497-8994.
- 1997 Assistant Specialist, Department of Mechanical Engineering, University of California, Irvine.
Supervisor: Professor Carl Friehe (deceased).

RESEARCH EXPERIENCE:

- Managed a meteorological/flux tower in the forest below Niwot Ridge, Colorado; maintained tower instrumentation, processed tower data, and distributed data to the AmeriFlux community.
- Maintained CO₂ instrumentation for the ROCKY RACCOON project (<http://raccoon.ucar.edu>).
- Participated in field projects CHATS, CASES-99 and SHOWEX. During CASES-99, maintained thermocouple data collection. Processed the thermocouple data for other science groups to use.
- Maintained webpages at the University of Colorado (http://urquell.colorado.edu/data_ameriflux/) and NCAR (<http://www.mmm.ucar.edu/abl/>) to exchange data and information.
- Participated in the TOGA COARE field experiment. Resided in the Solomon Islands for four months, and flew aboard the NOAA WP-3D aircraft as a research scientist. Processed the hi-rate WP-3D data and organized the data archives.

REVIEWER for JOURNAL ARTICLES in:

Agricultural and Forest Meteorology, Atmospheric Measurement Techniques, Biogeosciences, Boundary-Layer Meteorology, Geophysical Research Letters, Journal of Atmospheric and Oceanic Technology, Journal of Atmospheric Science, Journal of Geophysical Research, Water Resources Research

EDUCATION:

- 2011 PhD. Student, Dept of Geography, University of Colorado, Boulder, CO.
- Thesis Title: The Influence of Warm-Season Precipitation on Water Cycling and the Surface Energy Budget Just-Above a Colorado Subalpine Forest in Mountainous Terrain: Measurements and Modeling
- Research Adviser: Dr. Peter Blanken
- Coursework: Geography, Arctic Climate System, Thermodynamics
- 1993 M.S. Engineering, University of California, Irvine, Irvine, CA.
- Thesis Title: The Effect of Turbulence on the Average Heat Transfer from a Cylinder in Crossflow.
- Research Adviser: Dr. John LaRue.
- Coursework: Fluid Mechanics, Turbulence, Digital Data Analysis, Statistical Thermodynamics.
- 1990 B.S. Mathematics, University of Washington, Seattle, WA.
- Concentration in Mechanical Engineering with emphasis on Power and Fluid Dynamics.

PUBLICATIONS (lead author):

Burns, S.P., S.C. Swenson, W.R. Wieder, D.M. Lawrence, G.B. Bonan, J.F. Knowles, and P.D. Blanken, 2018: A comparison of the diel cycle of modeled and measured latent heat flux during the warm season in a Colorado subalpine forest. *Journal of Advances in Modeling Earth Systems*, **In press**, doi:10.1002/2017MS001248

Burns, S.P., G.D. Maclean, P.D. Blanken, S.P. Oncley, S.R. Semmer, and R.K. Monson, 2016: The Niwot Ridge Subalpine Forest US-NR1 AmeriFlux site Part I: Data acquisition and site record-keeping. *Geoscientific Instrumentation, Methods and Data Systems*, **5**, 451-471, doi:10.5194/gi-5-451-2016

Burns, S.P., P.D. Blanken, A.A. Turnipseed, J. Hu, and R.K. Monson, 2015: The influence of warm-season precipitation on the diel cycle of the surface energy balance and carbon dioxide at a Colorado subalpine forest site. *Biogeosciences*, **12**, 73497377, doi:10.5194/bg-12-7349-2015

Burns, S.P., N.P. Molotch, M.W. Williams, J.F. Knowles, B. Seok, R.K. Monson, A.A. Turnipseed, and P.D. Blanken, 2013: Snow temperature changes within a seasonal snowpack and their relationship to turbulent fluxes of sensible and latent heat. *Journal of Hydrometeorology*, **15**, doi:10.1175/JHM-D-13-026.1

Burns, S.P., T.W. Horst, L. Jacobsen, P.D. Blanken, and R.K. Monson, 2012: Using sonic anemometer temperature to measure sensible heat flux in strong winds. *Atmospheric Measurement Techniques*, **5**, 2095-2111, doi:10.5194/amt-5-2095-2012

Burns, S.P., J. Sun, D.H. Lenschow, S.P. Oncley, B.B. Stephens, C. Yi, D.E. Anderson, J. Hu, and R.K. Monson, 2011: Atmospheric stability effects on wind fields and scalar mixing within and just above a subalpine forest in sloping terrain. *Boundary-Layer Meteorology*, **138**, 231-262, doi:10.1007/s10546-010-9560-6

Burns, S.P., A.C. Delany, J. Sun, B.B. Stephens, S.P. Oncley, G.D. Maclean, S.R. Semmer, J. Schröter, and J. Ruppert, 2009: An evaluation of calibration techniques for in situ carbon dioxide measurements using a programmable portable trace-gas measuring system. *Journal of Atmospheric and Oceanic Technology*, **26**, 291-316, doi:10.1175/2008JTECHA1080.1

Burns, S.P., J. Sun, A.C. Delany, S.R. Semmer, S.P. Oncley, and T.W. Horst, 2003: A field intercomparison technique to improve the relative accuracy of longwave radiation measurements and an evaluation of CASES-99 pyrgeometer data quality. *Journal of Atmospheric and Oceanic Technology*, **20**, 348-361.

Burns, S.P., D. Khelif, C.A. Friehe, A.G. Williams, P. Hignett, A.L.M. Grant, J.M. Hacker, D.E. Hagan, Y.L. Serra, D.P. Rogers, E.F. Bradley, R.A. Weller, M.F. Cronin, S.P. Anderson, C.W. Fairall, C.A. Paulson, and P.A. Coppin, 2000: Comparisons of aircraft, ship, and buoy radiation and SST measurements from TOGA COARE. *Journal of Geophysical Research*, **105**, 15,627-15,652.

Burns, S.P., D. Khelif, C.A. Friehe, A.G. Williams, P. Hignett, A.L.M. Grant, J.M. Hacker, D.P. Rogers, E.F. Bradley, R.A. Weller, M.F. Cronin, S.P. Anderson, C.W. Fairall, and C.A. Paulson, 1999: Comparisons of aircraft, ship, and buoy meteorological measurements from TOGA COARE. *Journal of Geophysical Research*, **104**, 30,853-30,884.

PUBLICATIONS (co-author):

Albert, L. P., T. F. Keenan, **S. P. Burns**, T. E. Huxman, R. K. Monson, 2017: Climate controls over ecosystem metabolism: insights from a fifteen-year inductive artificial neural network synthesis for a subalpine forest. *Oecologia*, **184**, 25-41, doi:10.1007/s00442-017-3853-0

Molotch, N. P., D.M. Barnard, **S.P. Burns**, and T.H. Painter, 2016: Measuring spatiotemporal variation in snow optical grain size under a subalpine forest canopy using contact spectroscopy. *Water Resources Research*, **52**, doi:10.1002/2016WR018954

Winchell, T.S., D.M. Barnard, R.K. Monson, **S.P. Burns**, and N. P. Molotch, 2016: Earlier snowmelt reduces atmospheric carbon uptake in midlatitude subalpine forests. *Geophysical Research Letters*, **52**, doi:10.1002/2016GL069769 .

Berkelhammer, M., D. Noone, T.E Wong, **S.P. Burns**, J.F. Knowles, A. Kaushik, P.D. Blanken, and M.W. Williams, 2016: Convergent approaches to determine an ecosystem's transpiration fraction. *Global Biogeochemical Cycles*, **30**, doi:10.1002/2016GB005392

Metzger, S, G. Burba, **S. P. Burns**, P.D., Blanken, J., Li, H. Luo, and R. C. Zulueta, R. C., 2016: Optimization of an enclosed gas analyzer sampling system for measuring eddy covariance fluxes of H2O and CO2. *Atmospheric Measurement Techniques*, **9**, 1341-1359, doi:10.5194/amt-9-1341-2016

PUBLICATIONS (CON'T):

Biederman, J. A., Scott, R. L., Goulden, M. L., Vargas, R., Litvak, M. E., Kolb, T. E., Yopez, E. A., Oechel, W. C., Blanken, P. D., Bell, T. W., Garatuza-Payan, J., Maurer, G. E., Dore, S. and **Burns, S. P.**, 2016: Terrestrial carbon balance in a drier world: the effects of water availability in southwestern North America. *Global Change Biology*, 22, 18671879, doi:10.1111/gcb.13222

Knowles, J. F., A. A. Harpold, R. Cowie, M. Zeliff, H. R. Barnard, **S. P. Burns**, P. D. Blanken, J. F. Morse, and M. W. Williams, 2015: The relative contributions of alpine and subalpine ecosystems to the water balance of a mountainous, headwater catchment. *Hydrological Processes*, 29, 4794-4808, doi:10.1002/hyp.10526

Toomey, M., M. A. Friedl, S. Frohling, and Coauthors, 2015: Greenness indices from digital cameras predict the timing and seasonal dynamics of canopy-scale photosynthesis. *Ecological Applications*, 25, 99-115, doi:10.1890/14-0005.1

Knowles, J. F., **S. P. Burns**, P. D. Blanken, and R. K. Monson, 2014: Fluxes of energy, water, and carbon dioxide from mountain ecosystems at Niwot Ridge, Colorado. *Plant Ecology & Diversity*, doi:10.1080/17550874.2014.904950

Bowling, D. R., A. P. Ballantyne, J. B. Miller, **S. P. Burns**, T. J. Conway, O. Menzer, B. B. Stephens, and B. H. Vaughn, 2014: Ecological processes dominate the ¹³C land disequilibrium in a Rocky Mountain subalpine forest. *Global Biogeochemical Cycles* 27, doi:10.1002/2013GB004686

Burns, S. J. and **S. P. Burns**, 2014: Is there a layer deep in the Earth that uncouples heat from mechanical work? *Solid Earth Discussions* 6, 487-509, doi:10.5194/sed-6-487-2014

Scott-Denton, L. E., D. J. P. Moore, N. A. Rosenbloom, T. G. F. Kittel, **S. P. Burns**, D. S. Schimel, and R. K. Monson, 2013: Forecasting net ecosystem CO₂ exchange in a subalpine forest using model data assimilation combined with simulated climate and weather generation. *Journal of Geophysical Research (Biogeosciences)*, 118, 1-17, doi:10.1002/jgrg.20039

Brooks, B.-G. J., A. R. Desai, B. B. Stephens, and Coauthors, 2012: Assessing filtering of mountaintop CO₂ mole fractions for application to inverse models of biosphere-atmosphere carbon exchange. *Atmospheric Chemistry and Physics*, 12, 2099-2115, doi:10.5194/acp-12-2099-2012

Desai, A. R., D. J. P. Moore, and Coauthors, 2011: Seasonal pattern of regional carbon balance in the central Rocky Mountains from surface and airborne measurements. *Journal of Geophysical Research*, 116, G04009, doi:10.1029/2011JG001655

Patton, E. G., T. W. Horst, and Coauthors, 2011: The Canopy Horizontal Array Turbulence Study. *Bulletin of the American Meteorological Society*, 92, 593-611, doi:10.1175/2010BAMS2614.1

Riveros-Iregui, D. A., J. Hu, **S. P. Burns**, D. R. Bowling, and R. K. Monson, 2011: An interannual assessment of the relationship between the stable carbon isotopic composition of ecosystem respiration and climate in a high-elevation subalpine forest. *Journal of Geophysical Research (Biogeosciences)*, 116, G02005, doi:10.1029/2010JG001556

Xiao, J., et. al., 2011: Assessing net ecosystem carbon exchange of U.S. terrestrial ecosystems by integrating eddy covariance flux measurements and satellite observations. *Agricultural and Forest Meteorology*, **151**, 60-69, doi:10.1016/j.agrformet.2010.09.002

Yi, C., et. al., 2010: Climate control of terrestrial carbon exchange across biomes and continents. *Environmental Research Letters*, **5** (3), 0304007 (10 pp), doi:10.1088/1748-9326/5/3/0304007

Sun, J., S. P. Oncley, **S. P. Burns**, B. B. Stephens, D. H. Lenschow, et al., 2010: A multiscale and multidisciplinary investigation of ecosystem-atmosphere CO₂ exchange over the Rocky Mountains of Colorado. *Bulletin of the American Meteorological Society*, **91** (2), 209-230, doi:10.1175/2009BAMS2733.1

Hu, J., D. J. P. Moore, D. A. Riveros-Iregui, **S. P. Burns**, and R. K. Monson, 2010: Modeling whole-tree carbon assimilation rate using observed transpiration rates and needle sugar carbon isotope ratios. *New Phytologist*, **185**, 1000-1015, doi:10.1111/j.1469-8137.2009.03154.x

Xiao, J., et. al., 2010: A continuous measure of gross primary production for the conterminous United States derived from MODIS and AmeriFlux data. *Remote Sensing of Environment*, **114**, 576-591, doi:10.1016/j.rse.2009.10.013

Monson, R. K., M.R. Prater, J. Hu, **S. P. Burns**, J. P. Sparks, K. L. Sparks, and L.E. Scott-Denton, 2010: Tree species effects on ecosystem water-use efficiency in a high-elevation, subalpine forest. *Oecologia*, **162**, 491-504, doi:10.1007/s00442-009-1465-z

PUBLICATIONS (CON'T):

- Hu, J., D. J. P. Moore, **S. P. Burns**, and R. K. Monson, 2010: Longer growing seasons lead to less carbon sequestration by a subalpine forest. *Global Change Biology*, **16**, 771–783, doi:10.1111/j.1365-2486.2009.01967.x
- Bowling, D. R., J. B. Miller, M. E. Rhodes, **S. P. Burns**, R. K. Monson, and D. Baer, 2009: Soil, plant, and transport influences on methane in a subalpine forest under high ultraviolet irradiance. *Biogeosciences*, **6**, 1311–1324
- Molotch, N. P., P. D. Brooks, **S. P. Burns**, M. Litvak, R. K. Monson, J. R. McConnell, and K. Musselman, 2009: Ecohydrological controls on snowmelt partitioning in mixed-conifer sub-alpine forests. *Ecohydrology*, **2**, 129–142, doi:10.1002/eco.48
- Blanken, P. D., M. W. Williams, **S. P. Burns**, R. K. Monson, J. Knowles, K. Chowanski, and T. Ackerman, 2009: A comparison of water and carbon dioxide exchange at a windy alpine tundra and subalpine forest site near Niwot Ridge, Colorado. *Biogeochemistry*, **95**, 61–76, doi:10.1007/s10533-009-9325-9
- Turnipseed, A. A., **S. P. Burns**, D. J. P. Moore, J. Hu, A. B. Guenther, and R. K. Monson, 2009: Controls over ozone deposition to a high elevation subalpine forest. *Agricultural and Forest Meteorology*, **149**, 1447–1459, doi:10.1016/j.agrformet.2009.04.001
- Oncley, S. P., K. Schwenz, **S. P. Burns**, J. Sun, and R. K. Monson, 2009: A cable-borne tram for atmospheric measurements along transects. *Journal of Atmospheric and Oceanic Technology*, **26**, 462–473, doi:10.1175/2008JTECHA1158.1
- Bowling, D. R., W. J. Massman, S. M. Schaeffer, **S. P. Burns**, R. K. Monson, and M. W. Williams, 2009: Biological and physical influences on the carbon isotope content of CO₂ in a subalpine forest snowpack, Niwot Ridge, Colorado. *Biogeochemistry*, **95**, 37–59, doi:10.1007/s10533-008-9233-4
- Yi, C., D. E. Anderson, A. A. Turnipseed, **S. P. Burns**, J. P. Sparks, D. I. Stannard, and R. K. Monson, 2008: The contribution of advective fluxes to net ecosystem CO₂ exchange in a high elevation, subalpine forest. *Ecological Applications*, **18**, 1379–1390, doi:10.1890/06-0908.1
- Xiao, J., et. al., 2008: Estimation of net ecosystem carbon exchange for the conterminous United States by combining MODIS and AmeriFlux data. *Agricultural and Forest Meteorology*, **148**, 1827–1847, doi:10.1016/j.agrformet.2008.06.015
- Zobitz, J. M., **S. P. Burns**, M. Reichstein, and D. R. Bowling, 2008: Partitioning net ecosystem carbon exchange and the carbon isotopic disequilibrium in a subalpine forest. *Global Change Biology*, **14**, 1785–1800, doi:10.1111/j.1365-2486.2008.01609.x.
- Schaeffer, S.M., D.E. Anderson, **S.P. Burns**, R.K. Monson, J. Sun, and D.R. Bowling, 2008: Canopy structure and atmospheric flows in relation to the $\delta^{13}\text{C}$ of respired CO₂ in a subalpine coniferous forest. *Agricultural and Forest Meteorology*, **148**, 592–605, doi:10.1016/j.agrformet.2007.11.003
- Zobitz, J.M., **S.P. Burns**, J. Ogee, M. Reichstein, and D.R. Bowling, 2007: Partitioning net ecosystem exchange of CO₂: A comparison of a Bayesian/isotope approach to environmental regression methods. *Journal of Geophysical Research*, **112**, G03013, doi:10.1029/2006JG000282.
- Sun, J., **S.P. Burns**, A.C. Delany, S.P. Oncley, A.A. Turnipseed, B.B. Stephens, D.H. Lenschow, M.A. LeMone, R.K. Monson, and D.E. Anderson, 2007: CO₂ transport over complex terrain. *Agricultural and Forest Meteorology*, **145**, 1–21, doi:10.1016/j.agrformet.2007.02.007.
- Monson, R.K., **S.P. Burns**, M.W. Williams, A.C. Delany, M. Weintraub, and D.A. Lipson, 2006: The contribution of beneath-snow soil respiration to total ecosystem respiration in a high-elevation, subalpine forest. *Global Biogeochemical Cycles*, **20**, GB3030, doi:10.1029/2005GB002684.
- Heinsch, F.A., et. al., 2006: Evaluation of remote sensing based terrestrial productivity from MODIS using regional tower eddy flux network observations. *IEEE Transactions On Geoscience And Remote Sensing*, **44**, 1908–1925, doi:10.1109/TGRS.2005.853936.
- Monson, R.K., D.L. Lipson, **S.P. Burns**, A.A. Turnipseed, A.C. Delany, M.W. Williams, and S.K. Schmidt, 2006: Winter forest soil respiration controlled by climate and microbial community composition. *Nature*, **439**, doi:10.1038/nature04555.
- Yi, C., R.K. Monson, Z. Zhai, D.E. Anderson, B. Lamb, G. Allwine, A.A. Turnipseed, and **S.P. Burns**, 2005: Modeling and measuring the nighttime drainage flow in a high-elevation, subalpine forest with complex terrain. *Journal of Geophysical Research*, **110**, D22303, doi:10.1029/2005JD006282.

PUBLICATIONS (CON'T):

- Monson, R.K., J.P. Sparks, T.N. Rosenstiel, L.E. Scott-Denton, T.E. Huxman, P.C. Harley, A.A. Turnipseed, **S.P. Burns**, B. Backlund, and J. Hu, 2005: Climatic influences on net ecosystem CO₂ exchange during the transition from wintertime carbon source to springtime carbon sink in a high-elevation, subalpine forest. *Oecologia*, **146** (1), 130–147.
- Bowling, D.R., **S.P. Burns**, T.J. Conway, R.K. Monson, and J.W.C White, 2005: Extensive observations of CO₂ carbon isotope content in and above a high-elevation subalpine forest. *Global Biogeochemical Cycles*, **19**, GB3023, doi:10.1029/2004GB002394.
- Sun J., **S.P. Burns**, D. Vandemark, M.A. Donelan, L. Mahrt, T.L. Crawford, T.H.C. Herbers, G.H. Crescenti, and J.R. French, 2005: Measurement of directional wave spectra using aircraft laser altimeters. *Journal of Atmospheric and Oceanic Technology*, **22**, 869–885.
- Yi, C., R. Li, P.S. Bakwin, A. Desai, D.M. Ricciuto, **S.P. Burns**, A.A. Turnipseed, S.C. Wofsy, J.W. Munger, K. Wilson, and R.K. Monson, 2004: A nonparametric method for separating photosynthesis and respiration components in CO₂ flux measurements. *Geophysical Research Letters*, **31**, L17107.
- Turnipseed, A.A., D.E. Anderson, **S. Burns**, P.D. Blanken, and R.K. Monson, 2004: Airflows and turbulent flux measurements in mountainous terrain: Part 2: Mesoscale effects. *Agricultural and Forest Meteorology*, **125**, 187–205.
- Sun J., D.H. Lenschow, **S.P. Burns**, R.M. Banta, R.K. Newsom, R. Coulter, S. Frasier, T. Ince, C. Nappo, B.B. Balsley, M. Jensen, L. Mahrt, D. Miller, and B. Skelly, 2004: Atmospheric disturbances that generate intermittent turbulence in nocturnal boundary layers. *Boundary-Layer Meteorology*, **110**(2), 255–279.
- Sun J., **S.P. Burns**, A.C. Delany, S.P. Oncley, T.W. Horst, and D.H. Lenschow, 2003: Heat balance in the nocturnal boundary layer during CASES-99. *Journal of Applied Meteorology*, **42**, 1649–1666.
- Poulos, G.S., and **S.P. Burns**, 2003: An evaluation of bulk Ri-based surface layer flux formulas for stable and very stable conditions with intermittent turbulence. *Journal of the Atmospheric Sciences*, **60** (20), 2523–2537.
- Sun, J., **S.P. Burns**, D.H. Lenschow, R. Banta, R. Newsom, R. Coulter, S. Frasier, T. Ince, C. Nappo, W. Blumen, X. Lee, X.Z. Hu, 2002: Intermittent turbulence associated with a density current passage in the stable boundary layer. *Boundary-Layer Meteorology*, **105**, 199–219.
- Poulos, G.S., W. Blumen, D.C. Fritts, J.K. Lundquist, J. Sun, **S.P. Burns**, C. Nappo, R. Banta, R. Newsom, J. Cuxart, E. Terradellas, B. Balsley, and M. Jensen, 2002: CASES-99: A comprehensive investigation of the stable nocturnal boundary layer. *Bulletin of the American Meteorological Society*, **83**, 555–581.
- Mahrt, L., D. Vickers, R. Nakamura, M.R. Soler, J. Sun, **S.P. Burns**, and D.H. Lenschow, 2001: Shallow Drainage Flows. *Boundary-Layer Meteorology*, **101**, 243–260.
- Blumen, W., R. Banta, **S.P. Burns**, D.C. Fritts, R. Newsom, G.S. Poulos, and J. Sun, 2001: Turbulence statistics of a Kelvin-Helmholtz billow event observed in the night-time boundary layer during the Cooperative Atmosphere-Surface Exchange Study field program. *Dynamics of Atmos. and Oceans*, **34**, 189–204.
- Khelif, D., **S.P. Burns**, and C.A. Friehe, 1999: Improved wind measurements on research aircraft, *Journal of Atmospheric and Oceanic Technology*, **16**, 860–875.
- Walsh, E.J., R. Pinkel, D.E. Hagan, R.A. Weller, C.W. Fairall, D.P. Rogers, **S.P. Burns**, and M. Baumgartner, 1998: Coupling of internal waves on the main thermocline to the diurnal surface layer and sea surface temperature during the Tropical Ocean Global Atmosphere Coupled Ocean-Atmosphere Response Experiment. *Journal of Geophysical Research*, **103**, 12613–12628.
- Walsh, E.J., D.E. Hagan, D.P. Rogers, R. Pinkel, R.A. Weller, C.W. Fairall, C.A. Friehe, **S.P. Burns**, D. Khelif, D.C. Vandemark, R.N. Swift, and J.F. Scott, 1998: Observations of sea surface mean square slope under light wind during the TOGA COARE experiment. *Journal of Geophysical Research*, **103**, 12603–12612.
- Walsh, E.J., D.C. Vandemark, C.A. Friehe, **S.P. Burns**, D. Khelif, and R.N. Swift, 1998: Measuring sea surface mean square slope with a 36 Ghz scanning radar altimeter. *Journal of Geophysical Research*, **103**, 12587–12601.
- Burns S.P.**, 1993: The effect of turbulence on the average heat transfer from a cylinder in crossflow. *M.Sci. Thesis*, Department of Mechanical Engineering, University of California, Irvine.

SCIENTIFIC MEETINGS and WORKSHOPS:

Burns, S. P., J. M. Frank, W. J. Massman, E. G. Patton, and P. D. Blanken 2017: Static Pressure-Wind Covariance and Coherent Structures at Two Subalpine Forest Sites. Poster, *FLUXNET Conference 2017*, Berkeley, CA, 7–9 June 2017.

Burns, S.P., W.R. Wieder, S.C. Swenson, D.M. Lawrence, G. Bonan, J.F. Knowles, and P.D. Blanken, 2016: The Diel Cycle of Modeled and Measured Latent Heat Flux in a Colorado Subalpine Forest. 7.2, *32nd Conference on Agricultural and Forest Meteorology*, Salt Lake City, UT, American Meteorological Society, 20–24 June 2016.

Burns, S.P., T. W. Horst, S.P. Oncley, G. Maclean, S. Semmer, D. H. Lenschow, and P.D. Blanken, 2016: Characteristics of Wind and Turbulence Just-Above and Within a Subalpine Forest in Complex Terrain. Poster 117, *22nd Symposium on Boundary Layers and Turbulence*, Salt Lake City, UT, American Meteorological Society, 20–24 June 2016.

Burns, S.P., S. Metzger, P. D. Blanken, G. Burba, E. Swiatek, J. Li, and B. Conrad, 2014: A comparison of infrared gas analyzers above a subalpine forest B51K-03, *2014 AGU Fall Meeting*, San Francisco, CA, American Geophysical Union, 15–19 December

Burns, S. P., S. Metzger, P. D. Blanken, G. Burba, E. Swiatek, J. Li, B. Conrad, H. Luo, and J. Taylor, 2014: A comparison of infrared gas analyzers above a subalpine forest in complex terrain. Preprints, *17th Symposium on Meteorological Observation and Instrumentation*, Westminster, CO, American Meteorological Society, 9-13 June

Burns, S. P., P. D. Blanken, D. R. Bowling, and R. K. Monson, 2013: The effect of precipitation on the surface energy budget, carbon dioxide, and environmental conditions at a Colorado subalpine forest site. Poster, *The 2013 North American Carbon Program (NACP) Meeting*, Albuquerque, NM, North American Carbon Program, 4-7 February

Burns, S.P., J. Sun, D. H. Lenschow, S.P. Oncley, and P.D. Blanken, 2012: Gravity waves within and above a subalpine forest in complex terrain. Poster, *20th Symposium on Boundary Layers and Turbulence*, Boston, MA, American Meteorological Society, 9-13 July.

Burns, S.P., A.A. Turnipseed, D.R. Bowling, J. Hu, and R.K. Monson, 2009: Ten-year variability in fluxes, meteorology, and environmental conditions at a Colorado subalpine forest. Poster, *2009 AGU Fall Meeting*, San Francisco, CA, American Geophysical Union, 14-18 December.

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