

Jesse Nusbaumer

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Objective:

My career objective is to someday become a research scientist or professor in atmospheric, climate, or earth system science.

Education:

January 2012 – May 2016, University of Colorado, Boulder, CO

Doctor of Philosophy in Atmospheric and Oceanic Sciences

GPA: 3.67 on a 4.00 scale

August 2009 – December 2011, University of Colorado, Boulder, CO

Master of Science in Atmospheric and Oceanic Sciences

GPA: 3.64 on a 4.00 scale

August 2005 – May 2009, Purdue University, West Lafayette, IN

Bachelor of Science with departmental honors in Synoptic Meteorology and Atmospheric Chemistry

GPA: 3.63 on a 4.00 scale

Experience:

NASA Goddard Institute for Space Studies, New York, NY, June 2016 – Present, NASA Postdoctoral Program Fellow

University of Colorado, Boulder, CO, May 2010 – April 2016, Graduate Research Assistant

Metropolitan State University of Denver, Denver, CO, August 2014 – December 2014, Adjunct Professor

University of Colorado, Boulder, CO, August 2009 – April 2010, Graduate Teaching Assistant

Purdue University, West Lafayette, IN, January 2006 – July 2009, Undergraduate Research Assistant

University of Minnesota Minneapolis, MN, May 2007 – August 2007, Research Intern

Research Interests:

Climate and weather modeling; Water isotopes; Moist convection; Cloud physics; Atmospheric hydrology and the global water cycle; Paleoclimate; Climate change.

Publications:

Dee, S. G., **Nusbaumer, J.**, Bailey, A., Russell, J. M., Lee, J.-E., Konecky, B., Buenning, N. H., and D. C. Noone (2018). Tracking the Strength of the Walker Circulation with Stable Isotopes in Water Vapor. *Journal of Geophysical Research – Atmospheres*, Vol. 123, 14, 7254-7270, doi: 10.1029/2017JD027915.

Nusbaumer, J., and D. Noone (2018). Numerical Evaluation of the Modern and Future Origins of Atmospheric River Moisture over the West Coast of the United States. *Journal of Geophysical Research – Atmospheres*, Vol. 123, 12, 6423-6442, doi: 10.1029/2017JD028081.

Tabor, C., Otto-Bliesner, B., Brady, E., **Nusbaumer, J.**, Zhu, J., Erb, M., Wong, A., Liu, Z., and D. Noone (2018). Interpreting precession driven $\delta^{18}\text{O}$ variability in the South Asian monsoon region. *Journal of Geophysical Research – Atmospheres*, Vol. 123, 11, 5927-5946, doi: 10.1029/2018JD028424.

Stevenson, S., Powell, B., Cobb, K., **Nusbaumer, J.**, Merrifield, M., and D. Noone (2018). 20th Century Seawater $\delta^{18}\text{O}$ Dynamics and Implications for Coral-based Climate Reconstruction. *Paleoceanography and Paleoclimatology*, Vol. 33, 6, 606-625, doi: 10.1029/2017PA003304.

Zhu, J., Liu, Z., Brady, E. C., Otto-Bliesner, B., Marcott, S. A., Zhang, J., Wang, X., **Nusbaumer, J.**, Wong, T. E., Jahn, A., and D. Noone (2017). Investigating the direct meltwater effect in terrestrial oxygen-isotope paleoclimate records using an isotope-enabled Earth system model. *Geophysical Research Letters*, Vol. 44, 24, 12,501-12,510, doi: 10.1002/2017GL076253.

Zhu, J., Liu, Z., Brady, E., Otto-Bliesner, B., Zhang, J., Noone, D., Tomas, R., **Nusbaumer, J.**, Wong, T., Jahn, A., and C. Tabor (2017). Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model. *Geophysical Research Letters*, Vol. 44, 13, 6984-6992, doi: 10.1002/2017GL073406.

Dyer, E. L. E., Jones, D. B. A., **Nusbaumer, J.**, Li, H., Collins, O., Vettoretti, G., and D. Noone (2017). Congo Basin precipitation: Assessing seasonality, regional interactions, and sources of moisture. *Journal of Geophysical Research – Atmospheres*, Vol. 122, 13, 6882-6898, doi: 10.1002/2016JD026240.

Bailey, A., Blossey, P. N., Noone, D., **Nusbaumer, J.**, and R. Wood (2017). Detecting shifts in tropical moisture imbalances with satellite-derived isotope ratios in water vapor. *Journal of Geophysical Research – Atmospheres*, Vol. 122, 11, 5763-5779, doi: 10.1002/2016JD026222.

Nusbaumer, J., Wong, T. E., Bardeen, C., and D. C. Noone (2017). Evaluating hydrological processes in the Community Atmosphere Model Version 5 (CAM5) using stable isotope ratios of water. *Journal of Advances in Modeling Earth Systems*, Vol. 9, 2, 949-977, doi: 10.1002/2016MS000839.

Wong, T. E., **Nusbaumer, J.**, D. C. Noone (2017). Evaluation of modeled land-atmosphere exchanges with a comprehensive water isotope fractionation scheme in version 4 of the Community Land Model. *Journal of Advances in Modeling Earth Systems*, Vol. 9, 2, 978-1001, doi: 10.1002/2016MS000842.

Singh, H. A., Bitz, C. M., Donohoe, A., **Nusbaumer, J.**, and D. C. Noone (2016). A mathematical framework for analysis of water tracers: Part II, Understanding Large-Scale Perturbations in the Hydrological Cycle due to CO₂-Doubling. *Journal of Climate*, Vol. 29, 6765-6782, doi: 10.1175/JCLI-D-16-0293.1.

Singh, H. A., Donohoe, A., Bitz, C. M., **Nusbaumer, J.**, and D. C. Noone (2016). Greater aerial moisture transport distances with warming amplify interbasin salinity contrasts. *Geophysical Research Letters*, Vol. 43, 16, 8677-8684, doi: 10.1002/2016GL069796.

Singh, H. A., Bitz, C. M., **Nusbaumer, J.**, and D. C. Noone (2016). A mathematical framework for analysis of water tracers: Part I, Development of theory and application to the preindustrial mean state. *Journal of Advances in Modeling Earth Systems*, Vol. 8, 2, 991-1013, doi: 10.1002/2016MS000649.

Stevenson, S., Powell, B., Merrifield, M., Cobb, K., **Nusbaumer, J.**, and D. Noone (2015). Characterizing Coral Proxy Environments for Improved Climate Reconstruction: Mesoscale Influences on Central Pacific Islands. *Paleoceanography*, Vol. 30, 11, 1573-1593, doi: 10.1002/2015PA002824.

Bailey, A., **Nusbaumer, J.**, and D. Noone (2015). Precipitation efficiency derived from isotope ratios in water vapor distinguishes dynamical and microphysical influences on subtropical atmospheric constituents. *Journal of Geophysical Research – Atmospheres*, Vol. 120, 118, 9119-9137, doi: 10.1002/2015JD023403.

Noone, D., Risi, C., Bailey, A., Berkelhammer, M., Brown, D. P., Buening, N., Gregory, S., **Nusbaumer, J.**, Schneider, D., Sykes, J., Vanderwende, B., Wong, J., Meillier, Y., and D. Wolfe (2013). Determining water sources in the boundary layer from tall tower profiles of water vapor and surface water isotope ratios after a snowstorm in Colorado. *Atmospheric Chemistry and Physics*, Vol. 13, 1607-1623, doi: 10.5194/acp-13-1607-2013.

Srifer, R. L., Huber, M., and **J. Nusbaumer** (2008). Investigating tropical cyclone-climate feedbacks using the TRMM Microwave Imager and the Quick Scatterometer. *Geochem., Geophys., Geosyst.*, Vol. 9, 9, doi: 10.1029/2007GC001842.

Nusbaumer, J., and K. Matsumoto (2008). Climate and Carbon Cycle Changes under the Overshoot Scenario. *Global and Planetary Change*. Vol. 62, 1-2, 164-172, doi: 10.1016/j.gloplacha.2008.01.002.

Contributed Works and Presentations:

Oral Presentations (* denotes presenting author):

Hu, J.*, Emile-Geay, J., and **J. Nusbaumer**. What are Asian Speleothem $\delta^{18}\text{O}$ Telling us? Insights from an Isotope-Enabled Model. *Goldschmidt 2018*. Boston, MA, August 2018.

Nusbaumer, J.*, and A. N. LeGrande. A High CO_2 climate in GISS ModelE2.1: preliminary results. *3rd Deep-time Modeling Intercomparison Project (DeepMIP) Meeting*. Bristol, UK, July 2018.

Schmidt, G. A.*, LeGrande, A. N., Field, R. D., and **J. Nusbaumer**. Water Isotopes in the GISS GCM: History, Applications and Potential. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Zhu, J.*, Liu, Z., Brady, E. C., Otto-Bliesner, B., Marcott, S. A., Zhang, J., Wang, X., Noone, D., **Nusbaumer, J.**, Wong, T. E., and A. Jahn. Investigating the direct meltwater effect in oxygen-isotope records using an isotope-enabled Earth system model. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Bailey, A. R.*, Singh, H. A., **Nusbaumer, J.**, Dee, S., Blossey, P. N., and E. S. Posmentier. What water isotopes tell us about water cycle responses to climate change. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

LeGrande, A. N.*, Carlson, A. E., Ullman, D. J., and **J. Nusbaumer**. Water Source and Isotope changes through the Deglaciation and Holocene. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Nusbaumer, J.*, Konecky, B. L., Otto-Bliesner, B., and A. N. LeGrande. The relationship between water isotope ratios and moisture source in GISS and iCESM model simulations. *Paleoclimate Modeling Intercomparison Project Phase 4 (PMIP4) 2017 Workshop*. Stockholm, Sweden, September 2017.

Tabor, C., Otto-Bliesner, B., Brady, E., Feng, R., **Nusbaumer, J.**, Zhu, J., and CESM Isotope Tracer Development Group. Understanding $\delta^{18}\text{O}$ Variability in Monsoon Regions Using an Earth System Model. *PAGES Open Science Meeting*. Zaragoza, Spain, May 2017.

Dee, S. G.*, Russell, J. M., **Nusbaumer, J.**, Konecky, B. L., Buening, N. H., Lee, J.-E., and D. Noone. Partitioning the effects of Global Warming on the Hydrological Cycle with Stable Isotopes in Water Vapor. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Blossey, P. N.*, Singh, M. S., Ma, D., **Nusbaumer, J.**, Noone, D., and Z. Kuang. A superparameterized, isotope-enabled global climate model (iSPCAM). *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Noone, D.*, Horlick, K. A., **Nusbaumer, J.**, Anderson, D. M., Emile-Geay, J., Hakim, G. J., Perkins, W. A., Steig, E. J., and R. Tardif. A synthesis of isotope ratios in precipitation from an assimilation of GNIP observations in a climate model. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Wong, C. I.*, **Nusbaumer, J.**, and J. Banner. Investigating the link between variability in precipitation source, amount, and $\delta^{18}\text{O}$ variability in the Southwest U.S. using an isotope enabled model that uses water tags. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Konecky, B. L.*, Noone, D., **Nusbaumer, J.**, Cobb, K. M., Di Nezio, P. N., and B. L. Otto-Bliesner. Water isotope tracers of tropical hydroclimate in a warming world. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Nusbaumer, J.* (Invited), Wong, T. E., Faber, A.-K., Noone, D., Brady, E., Bardeen, C., Gettelman, A., Otto-Bliesner, B., Vertenstein, M., and J. Zhu. The sensitivity of CESM-simulated water isotope ratios to model parametric and structural changes. *2nd Annual Last Millennium Reanalysis Workshop: Water-Isotope Modeling for Paleoclimate Reconstruction and Data Assimilation*. Friday Harbor, WA, October 2016.

Nusbaumer, J.*, and D. C. Noone. A numerical evaluation of the sources of moisture for atmospheric rivers that impact the West Coast of the United States in the modern era and 2100. *International Atmospheric Rivers Conference*. La Jolla, CA, August 2016.

Nusbaumer, J.*, Wong, T., Bardeen, C., and D. Noone. Examining hydrologic model biases in CAM5 using stable water isotopes. *CESM Atmosphere Model Working Group Winter Meeting*. Boulder, CO, February 2016.

Stevenson, S.*, Powell, B., Merrifield, M. A., Cobb, K. M., **Nusbaumer, J.**, and D. C. Noone. Identifying Oxygen Isotopic Signatures of ENSO Dynamics Through Isotope-Enabled Regional Ocean Modeling. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Konecky, B. L.*, Noone, D. C., **Nusbaumer, J.**, Cobb, K. M., and Conroy, J. L. Water Isotope Tracers of Indo-Pacific Atmospheric Circulation: A Modern Take on Past Dynamics. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Wong, C. I.*, **Nusbaumer, J.**, and J. Banner. Reconstructing climate processes driving variability in precipitation sources from mid to late Holocene speleothem $\delta^{18}\text{O}$ records from the Southwest US. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Wong, C. I.*, **Nusbaumer, J.**, and J. Banner. Quantification of modern moisture source variability to southwest US. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Singh, H. A.*, Bitz, C. M., **Nusbaumer, J.**, and D. C. Noone. Aerial Moisture Transport in the Earth Climate System: A Study of the Mean State and Perturbations Due to CO₂-Doubling using Numerical Water Tracers and a Novel Linear Algebra Analysis Framework. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Nusbaumer, J.*, and D. Noone. Examining model biases in iCAM5 using water isotope tuning experiments. *Ice2Ice Isotope modelling workshop*. Copenhagen, Denmark, October 2015.

Nusbaumer, J.*, Wong, T., and D. C. Noone. The impact of differing land surface models and water isotopic parameterizations on the distribution of water isotopes in a coupled atmosphere-land global climate model. *AGU Fall Meeting 2014*. San Francisco, CA, December 2014.

Nusbaumer, J.*, Bardeen, C., and D. C. Noone. Stable Water Isotopes in CAM5. *Paleoclimate Working Group Meeting - 18th Annual CESM Workshop*. Breckenridge, CO, June 2013.

Nusbaumer, J.* Stable water isotopes in global models: Examples from iCESM development. *Graduate Climate Conference 2012*. University of Washington Pack Forest Conference Center, WA, October 2012.

Nusbaumer, J.*, Bardeen, C., and D. C. Noone. Recent additions to isotope-enabled CAM5. *Paleoclimate Working Group Meeting – 17th Annual CESM Workshop*. Breckenridge, CO, June 2012.

Nusbaumer, J.*, Noone, D. C., Vertenstein, M., Otto-Bliesner, B., Brady, E., Gettelman, A., and C. Bardeen. Stable Water Isotopes in CAM5: Current development and initial results. *Paleoclimate Working Group Meeting - 16th Annual CESM Workshop*. Breckenridge, CO, June 2011.

Huber, M.*, **Nusbaumer, J.**, R. L. Sriver. Importance of Changes in Extreme Weather Events for the Maintenance of Past Warm Climates. *AGU Chapman Conference on Atmospheric Water Vapor and its Role in Climate*. Kailua-Kona, HI, October 2008.

Sriver, R. L.*, Huber, M., and **J. Nusbaumer**. Applying TMI Retrievals of Sea Surface Temperature and Surface Winds to Understanding Tropical Cyclone-Induced Climatic

Feedbacks. *The third NASA/JAXA International TRMM Science Conference*. Las Vegas, NV, February 2008.

Poster Presentations (* denotes presenting author):

Nusbaumer, J.*, LeGrande, A. N., Field, R. D., Kelley, M., and D. Kim. The relationship between moisture source, water isotopes, and the MJO in the GISS climate model. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Li, Y.*, Jones, D. B. A., Dyer, E., **J. Nusbaumer**, and D. Noone. Understanding the impact of ENSO on the variability and sources of moisture for precipitation in mainland southeast Asia during the onset of the Indian summer monsoon. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Tabor, C. R.*, Otto-Bliesner, B., Brady, E. C., **Nusbaumer, J.**, Zhu, J., and M. P. Erb. Understanding the $\delta^{18}\text{O}$ Response to Precession in the South Asian Monsoon Region. *AGU Fall Meeting 2017*. New Orleans, LA, December 2017.

Nusbaumer, J.*, Niezgoda, K., Craig, C., Gettelman, A., Otto-Bliesner, B., and D. Noone. Water Isotopes in CAM5.5: First results and a comparison to previous versions. *21st Annual CESM Workshop*. Boulder, CO, June 2017.

Nusbaumer, J.*, LeGrande, A. N., and R. D. Field. Evaluating Atmospheric River Moisture Sources using Water Tracer and Isotope-enabled Climate Models. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Singh, H. A.*, Bitz, C. M., Donohoe, A., **Nusbaumer, J.**, and D. Noone. A Lagrangian Perspective on Aerial Hydrologic Cycle Changes in a Warmer World. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Wang, H.*, Fyke, J. G., Lenaerts, J., **Nusbaumer, J.**, Noone, D., and P. J. Rasch. Influence of Sea Ice Anomalies on Antarctic Precipitation and Its Source Attribution. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Bailey, A. R.*, Wood, R., Blossey, P. N., **Nusbaumer, J.**, Noone, D., and H. A. Singh. Measuring Changes in E-P with Isotope Ratios in Water Vapor. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Zhu, J.*, Liu, Z., Otto-Bliesner, B., Brady, E. C., Noone, D., Zhang, J., Tomas, R. A., Jahn, A., **Nusbaumer, J.***, and T. E. Wong. Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model. *AGU Fall Meeting 2016*. San Francisco, CA, December 2016.

Isotope Tracer Development Group (including **J. Nusbaumer**). Development of the Isotope-enabled CESM2. *21st Annual CESM Workshop*. Breckenridge, CO, June 2016.

Nusbaumer, J.*, and D. Noone. The climatological moisture sources for Atmospheric Rivers impacting the West Coast of United States in modern and doubled CO2 climates. *AGU Fall Meeting 2015*. San Francisco, CA, December 2015.

Dyer, E.*, Jones, D., Noone, D., **Nusbaumer, J.**, and O. Collins. Congo Basin precipitation: understanding sources and variability. *Our Common Future Under Climate Change International Scientific Conference*. Paris, France, July 2015.

Nusbaumer, J.*, and D. Noone. The sensitivity of simulated water isotope distributions to differing climate model cloud parameters. *IAEA International Symposium on Isotope Hydrology*. Vienna, Austria, May 2015.

Konecky, B.*, Noone, D., **Nusbaumer, J.**, and K. Cobb. ENSO and Indo-Pacific water isotopes: Observations, modeling, and implications for proxy reconstructions. *IAEA International Symposium on Isotope Hydrology*. Vienna, Austria, May 2015.

Dyer, E.*, Jones, D., Noone, D., and **J. Nusbaumer**. Local and long-range contributions to Congo Basin precipitation seasonality and variability. *EGU General Assembly 2015*. Vienna, Austria, April 2015.

Dyer, E.*, Jones, D., Noone, D., and **J. Nusbaumer**. Assessing regional moisture source contributions to Congo Basin precipitation variability. *EGU General Assembly 2015*. Vienna, Austria, April 2015.

Stevenson, S.*, Powell, B., Merrifield, M., Cobb, K., Noone, D., and **J. Nusbaumer**. Multiscale Dynamics of ENSO Impacts on Coral Proxy Environments: Towards Improving Reconstruction Accuracy. *EGU General Assembly 2015*. Vienna, Austria, April 2015.

Singh, H.*, Bitz, C., **Nusbaumer, J.**, and D. C. Noone. A modeling study of precipitable transport into the Arctic and Antarctic in Preindustrial and Doubled-CO2 climates. *AGU Fall Meeting 2014*. San Francisco, CA, December 2014.

Bailey, A.*, **Nusbaumer, J.**, Sato, P., and D. C. Noone. Dynamical and microphysical controls on subtropical water vapor isotope ratios: using new spectroscopic measurements to link isotopic and climatic variability. *AGU Fall Meeting 2014*. San Francisco, CA, December 2014.

Stevenson, S.*, Powell, B., Cobb, K., Otto-Bliesner, B., Merrifield, M., Noone, D. C., **Nusbaumer, J.**, Brady, E., Fasullo, J., Mai, A., and N. Rosenbloom. Evaluating the ENSO

impact on last millennium megadroughts using improved coral forward models. *AGU Fall Meeting 2014*. San Francisco, CA, December 2014.

Konecky, B.*, Noone, D. C., **Nusbaumer, J.**, and K. Cobb. ENSO and Indo-Pacific water isotopes: observations, modeling, and implications for proxy reconstructions. *AGU Fall Meeting 2014*. San Francisco, CA, December 2014.

Nusbaumer, J.*, and D. C. Noone. Atmospheric river moisture sources and moisture transport as simulated by water isotope-enabled CAM5. *19th Annual CESM Workshop*. Breckenridge, CO, June 2014.

Konecky, B.*, Noone, D. C., **Nusbaumer, J.**, and K. Cobb. New constraints on ENSO/water cycle interactions in the Indo-Pacific from the δD of tropospheric water in observations and iso-CAM5. *19th Annual CESM Workshop*. Breckenridge, CO, June 2014.

Faber, A.-K.*, Noone, D. C., **Nusbaumer, J.**, Vinther, B. M., and J. Sjolte. Performance of isoCAM5 over Greenland. *19th Annual CESM Workshop*. Breckenridge, CO, June 2014.

Nusbaumer, J.*, Bardeen, C., Brady, E., Wong, T., and D. C. Noone. The impact of different physical assumptions on a water isotope climatology simulated by an isotope-enabled version of the NCAR Community Atmosphere Model, Version 5 (CAM5). *AGU Fall Meeting 2013*. San Francisco, CA, December 2013.

Bailey, A.*, Noone, D. C., **Nusbaumer, J.**, and D. W. Toohey. Determining dynamical controls on vertical motion near Hawaii using isotope ratios in water. *AGU Fall Meeting 2013*. San Francisco, CA, December 2013.

Nusbaumer, J.*, Bardeen, C., and D. C. Noone. The simulation of stable water isotope ratios in an atmospheric global climate model. *Front Range Isotope day (FRIday) Symposium*. Fort Collins, CO, August, 2013.

Nusbaumer, J.*, Bardeen, C., and D. C. Noone. An implementation of water tracers and water tags in the Community Atmosphere Model Version 5 (CAM5). *18th Annual CESM Workshop*. Breckenridge, CO, June 2013.

Bailey, A.*, **Nusbaumer, J.**, and D. C. Noone. Two Years of Continuous Water Vapor Isotope Ratio Measurements at Mauna Loa: A New Glimpse Into Humidity Controls in the Subtropics. *NOAA 2013 ESRL/GMD Annual Conference*. Boulder, CO, May 2013.

Nusbaumer, J.*, Noone, D. C., and C. Bardeen. Evaluating Moist processes in the Community Atmosphere Model (CAM5) using stable water isotopes. *AGU Fall Meeting 2012*. San Francisco, CA, December 2012.

Nusbaumer, J.*, and D. C. Noone. A global Atmospheric River climatology as simulated by the Community Atmosphere Model Version 5 (CAM5), compared to results from reanalyses. *AGU Fall Meeting 2011*. San Francisco, CA, December 2011.

Nusbaumer, J.*, and D. C. Noone. Atmospheric Rivers: A global climatology based on reanalysis and CAM. *WCRP Open Science Conference*. Denver, CO, October 2011.

Nusbaumer, J.*, and D. C. Noone. A climatology of Atmospheric Rivers based on NCEP reanalysis. *WAVACS-COST winter school*. Venice, Italy, February 2011.

Noone, D. C.*, Risi, C., Raudzens Bailey, A., Brown, D. P., Buening, N. H., Gregory, S. A., **Nusbaumer, J.**, Sykes, J., Schneider, D. P., Vanderwende, B. J., Wong, J., D. E. Wolfe. Atmosphere-surface water exchanges from measurements of isotopic composition at a tall tower in Boulder. *AGU Fall Meeting 2010*. San Francisco, CA, December 2010.

Nusbaumer, J.*, and D. C. Noone. A climatology of Atmospheric Rivers based on NCEP reanalysis and variability associated with ENSO. *AGU Fall Meeting 2010*. San Francisco, CA, December 2010.

Awards and Honors Received:

NASA GISS:

Awarded a NASA Postdoctoral Program Fellowship in June 2016.

University of Colorado:

Awarded the Graduate School Dissertation Completion fellowship for the Fall 2015 semester.

Received the Certificate in College Teaching from the University of Colorado's Graduate Teacher Program in April 2015.

Awarded a CIRES Graduate Student Research Fellowship for the Fall 2013 Semester.

Awarded an NSF Graduate Research Fellowship in April 2010

Purdue University:

Received the Earth and Atmospheric Science department's Recognition of Academic Achievement award in 2009.

Awarded the American Meteorological Society and Science Systems and Applications Inc.'s Saraswati Bahethi Scholarship for the 2008-2009 school year.

Awarded an Earth & Atmospheric Science department Gift Fund Scholarship for the 2008-2009 school year.

Selected to be the Earth & Atmospheric Science department's undergraduate representative for the 2007-2008 school year.

Awarded an REU summer internship at the University of Minnesota for the year 2007.

Awarded a Discovery Park Undergraduate Research Internship grant for the year 2007 and 2008.

On Purdue's Dean's List for the Fall 2005, Fall 2007, Spring and Fall 2008, and Spring 2009 semesters.

Received Semester Honors for the Fall 2005, Spring and Fall 2007, spring and Fall 2008, and Spring 2009 semesters.

Professional Memberships:

Member of the American Geophysical Union.

Member of the American Meteorological Society.

Activities and Volunteer Work:

NASA GISS:

Co-convener of the Water Isotope Systematics session at the 2018 AGU Fall Meeting.

University of Colorado:

University of Colorado Graduate Teacher Program's Lead Teaching Assistant for the Atmospheric and Oceanic Sciences department for the 2013-2014 school year.

Upgraded the computer systems and software for the ATOC Skywatch observatory in the summer of 2014, and helped maintain the observatory from August 2014 to May 2016. Helped set-up an official Global Network of Isotopes in Precipitation (GNIP) station at the University of Colorado, along with Nik Buenning and David Noone. The station data is submitted semi-annually to the International Atomic Energy Administration (IAEA), with the last submission in March, 2014.

Member of the Atmospheric and Oceanic Science department's Comprehensive exam committee for the 2012-2013 and 2013-2014 school years.

Member of the Atmospheric and Oceanic Science department's ATOC Forum committee for the 2009-2010, 2010-2011 and 2012-2013 school years.

Member of the Atmospheric and Oceanic Science department's Poster Committee for the 2009-2010 school year.

Member of the American Meteorological Society's Student Conference Planning Committee for the 2010 and 2011 AMS student conferences.

Purdue University:

Member of the Purdue AMS chapter (Purdue University Meteorological Association - PUMA) from Fall 2005 to Spring 2009, and was the Treasurer from 2006 to 2007, the Vice-President from 2007 to 2008, and the President from 2008 to 2009.