# Marysa M. Laguë, PhD

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she/her PRONOUNS:

### Research Interests

Land-atmosphere interactions. Climate dynamics. Terrestrial surface energy budget. Land impacts on the global energy budget. Earth system modeling & idealized modeling. Land use impacts on the climate system. Atmospheric feedbacks. Vegetation impacts on the hydrologic cycle.

## Current Position

Mar. 2021-Present James S. McDonnell Foundation Postdoctoral Fellow in

Dynamic and Multiscale Systems

Coldwater Lab

University of Saskatchewan Center for Hydrology

Canmore, Alberta, Canada Host: Dr. Martyn Clark

## **Previous Positions**

DEC. 2020-FEB. 2021 Visiting Research Fellow

Coldwater Lab

University of Saskatchewan Center for Hydrology

Canmore, Alberta, Canada Host: Dr. Martyn Clark

Oct. 2019-Dec. 2020 James S. McDonnell Foundation Postdoctoral Fellow in

> Dynamic and Multiscale Systems University of California, Berkeley

Department of Earth & Planetary Science

Berkeley, CA, USA Host: Dr. William Boos

### Education

2019 PhD, Atmospheric Sciences

University of Washington

Seattle, WA, USA

Department of Atmospheric Sciences

Advisor: Dr. Abigail Swann

Supervisory committee: Abigail Swann, Gordon Bonan, Cecilia Bitz, David Battisti,

Dargan Frierson, Gerard Roe

Dissertation: Quantifying the role of individual surface properties on atmospheric feedbacks and

 $land\hbox{-}atmosphere\ interactions$ 

2018 MSc, Applied Mathematics

University of Washington

Seattle, WA, USA

2016 MSc, Atmospheric Sciences

University of Washington

Seattle, WA, USA

Thesis: Progressive Mid-latitude Afforestation: Local and Remote Climate Impacts in the Framework of Two Coupled Earth System Models

2013 BSc, Honours Mathematics

University of British Columbia

Vancouver, BC, Canada

## **Publications**

M. M. Laguë, A. L. S. Swann, W. R. Boos. Radiative feedbacks on land surface change and associated tropical precipitation shifts. Journal of Climate, 34, 16 (2021): 6651-6672 (2021). EarthArXiv Preprint. DOI: 10.1175/JCLI-D-20-0883.1

M. M. Laguë, M. Pietschnig, S. Ragen, T. Smith, D. S. Battisti. Terrestrial evaporation and global climate: lessons from Northland, a planet with a hemispheric continent. Journal of Climate, 34(6), 2253–2276, 2021. EarthArXiv Preprint. DOI: 10.1175/JCLI-D-20-0452.1.

F. Tromboni, J. Liu, E. Ziaco, D. Breshears, K. Thompson, W. Dodds, K. Dahlin, E. La Rue, J. Thorp, Andrés Viña, M. M. Laguë, A. Maasri, H. Yang, S. Chandra, S. Fei. Macrosystems as metacoupled human and natural systems. Frontiers in Ecology and the Environment, 20-29, 2021. DOI: 10.1002/fee.2289

A. J. Rushby, A. L. Shields, E. T. Wolf, M. M. Laguë, A. Burgasser. The Effect of Land-Albedo Feedback on the Climate of Land-Dominated Planets in the TRAPPIST-1 System. The Astrophysical Journal, 2020. ArXiv Preprint. DOI:10.3847/1538-4357/abbe04.

L. Boysen, V. Brovkin, J. Pongratz, D. Lawrence, P. Lawrence, N. Vuichard, P. Peylin, S. Liddicoat, T. Hajima, Y. Zhang, M. Rocher, C. Delire, R. Stéférian, V. Arora, L. Nieradzik, P. Anthoni, W. Thiery, M. M. Laguë, D. Lawrence, M. Lo. Global climate response to idealized deforestation in CMIP6 models. Biogeosciences, 2020. DOI: 10.5194/bg-2020-229.

C. M. Zarakas\*, A. L. S. Swann, M. M. Laguë, K. C. Armour, J. T. Randerson. Plant Physiology Increases the Magnitude and Spread of the Transient Climate Response in CMIP6 Earth System Models. Journal of Climate, 33(19), 8561-8578, 2020. DOI: 10.1175/JCLI-D-20-0078.1; EarthArXiv Preprint EMGXB.

\*Graduate student co-advised by M. M. Laguë & A. L. S. Swann

J. Kim\*, M. M. Laguë, S. Pennypacker, E. Dawson\*, A. L. S. Swann. Evaporative Resistance is of Equal Importance as Surface Albedo in High Latitude Surface Temperatures Due to Cloud Feedbacks . Geophysical

Research Letters, 47(4). e2019GL085663 DOI: 10.1029/2019GL085663; EarthArXiv Preprint S5M4U. \*Undergraduate student co-advised by M. M. Laguë & A. L. S. Swann

- M. M. Laguë Quantifying the role of individual surface properties in atmospheric feedbacks and land-atmosphere interactions. University of Washington. 2019. ProQuest PhD Dissertation.
- M. M. Laguë, G. B. Bonan, and A. L. S. Swann. Separating the impact of individual land surface properties on the terrestrial surface energy budget in both the coupled and un-coupled land-atmosphere system. Journal of Climate, 32, 5725-5744, 2019. DOI: 10.1175/JCLI-D-18-0812.1.
- A. L. S. Swann, M. M. Laguë, E. S. Garcia, J. P. Field, D. D. Breshears, D. J. P. Moore, S. R. Saleska, S. C. Stark, J. C. Villegas, D. J. Law, and D. M. Minor. Continental-scale consequences of tree die-offs in North America: identifying where forest loss matters most. Environmental Research Letters, 13(5): 55014, 2018. DOI: 10.1088/1748-9326/aaba0f.
- M. M. Laguë and A. L. S. Swann. Progressive Mid-latitude Afforestation: Impacts on Clouds, Global Energy Transport, and Precipitation. Journal of Climate, 29(15):5561-5573, 2016. DOI: 10.1175/JCLI-D-15-0748.1.
- M. Laguë, N. Tania, J. Heath, and L. Edelstein-Keshet. The effects of facilitation and competition on group foraging in patches. Journal of Theoretical Biology, 310:88-96, 2012. ISSN 00225193. DOI: 10.1016/j.jtbi.2012.06.024.

## Honours and Awards

**Bold** entries indicate awards from National or International competitions.

2021	${\bf James~R.~Holton~Award}, {\it American~Geophysical~Union}, {\it Atmospheric~Sciences~Section}.$
2019	https://eos.org/agu-news/2021-agu-section-awardees-and-named-lecturers Community Earth System Model 2019 Graduate Student Award, National Center for Atmospheric Research. http://www.cesm.ucar.edu/about/awards/2019.html
2018-present	James S. McDonnell Foundation Postdoctoral Fellowship in Understanding Dynamic and Multi-scale Systems (Active Fellow from Fall 2019 - present)
2016-2019	National Science and Engineering Research Council of Canada Postgraduate Studies Doctoral Fellowship
2018	Andrew Slater Award for best student or postdoc presentation (Land Model Working Group Meeting), National Center for Atmospheric Research
2017	Husky 100 Award, University of Washington
2017	$3^{rd}$ Place, Peter B. Wagner Memorial Award for Women in Atmospheric Sciences
2016	Advanced Studies Program (ASP) Visiting Graduate Student Award, National Center for Atmospheric Research
2013-2014	National Science and Engineering Research Council of Canada Alexander Graham Bell Canadian Graduate Studies Fellowship/Postgraduate Studies Fellowship
2013	Rotary Youth Leadership Award, Rotary International, District 5080
2011	Undergraduate Student Research Award (Dept. of Mathematics), $University$ of $British$ $Columbia$
2009-2012	Chancellor's Scholarship, University of British Columbia
2010	Trek Excellence Scholarship, University of British Columbia

2009	President's Scholarship, University of British Columbia
2009	Columbia Power Corporation Scholarship
2009	Chevron Canada/Molnar Bursary
2008	Premier's Excellence Award, Government of British Columbia (for the top graduating high school students in the province)
2008	BC Innovation Council / BC Science Teachers' Association Award
2008	Cranbrook Lion's Club Scholarship
2008	Tembec University Studies Scholarship
2008	Dogwood District/Authority Award
2008	Scholastic Distinction Scholarship (College of the Rockies)
2008	Joanne McWhirter/Helton Scholarship for Physics
2008	British Columbia Provincial Scholarship Award
2008	Top Academic Graduate Award, Mount Baker Senior Secondary

# Presentations

Invited Panelist & Speaker	Community Earth System Model Workshop, Land Model Working Group Meeting, National Center for Atmospheric Research, Virtual / Boulder, CO, USA	2021
Invited Talk	Land-Atmosphere Seminar Series, University of New South Wales, Australia Virtual / Sydney, Australia	2021
Invited Talk	Yale Earth System Science Seminar Virtual / Yale, USA	2021
Invited Talk	Scripps Institution of Oceanography Climate Journal Club, University of California San Diego, Virtual / San Diego, CA, USA	2021
Invited Talk	Physics of Oceans and Atmospheres Seminar, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, Virtual / Corvallis, OR, USA	2021
Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, Virtual / Boulder, CO, USA	2021
Invited Talk	Center for Hydrology, University of Saskatchewan, $Virtual / Coldwater Lab, Canmore, Alberta, Canada$	2020
Invited Talk	American Geophysical Union Fall Meeting, $Virtual \ / \ San \ Francisco, \ CA, \ USA$	2020
Poster	American Geophysical Union Fall Meeting, $Virtual \ / \ San \ Francisco,$ $CA,\ USA$	2020
Invited Talk	Department of Atmospheric Sciences Seminar, University of Illinois at Urbana-Champaign, Virtual / Champaign, IL, USA	2020
Invited Talk	Stanford University CLimate, Atmosphere and Ocean Dynamics (CLAOD) Seminar, Sanford University, Virtual / Stanford, CA, USA	2020
Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, $Boulder,\ CO,\ USA$	2020
Poster	Berkeley Atmospheric Sciences Center (BASC) Symposium, University of California, Berkeley Berkeley, CA, USA	2020
Poster	American Geophysical Union Fall Meeting, San Francisco, CA, USA	2019
Invited Talk	Department of Earth & Climate Science Distinguished Speaker Series, San Francisco State University, San Francisco, CA, USA	2019
Invited Instructor	Advanced Climate Dynamics Courses (ACDC, 2 lectures), $Yosemite$ , $CA$ , $USA$	2019

Invited Talk	Aspen Global Change Institute Land Use Meeting, $Snowmass,\ CO,\ USA$	2019
Invited Talk	24th Annual Community Earth System Model Workshop, National Center for Atmospheric Research, Boulder, CO, USA	2019
Talk	University of Washington Department of Atmospheric Sciences Colloquium (PhD Defence), Seattle, WA, USA	2019
Invited Talk	Seminar, Max Planck Institute for Meteorology, Hamburg, Germany	2019
Invited Talk	Seminar, Department of Earth & Planetary Science, University of California, Berkeley, Berkeley, CA, USA	2019
Invited Talk	Seminar, Department of Earth System Science, University of California, Irvine, $Irvine,\ CA,\ USA$	2019
Invited Talk	Climate & Global Dynamics Seminar, National Center for Atmospheric Research, $Boulder,\ CO,\ USA$	2019
Invited Talk	American Geophysical Union Fall Meeting, Washington, D.C., USA	2018
Talk	Advanced Climate Dynamics Courses Summer School, $Finse, Norway$	2018
Talk	23rd Community Earth System Model Workshop, National Center for Atmospheric Research, $Boulder,\ CO,\ USA$	2018
Talk	UW Program on Climate Change Spring Symposium, University of Washington, $Seattle,\ WA,\ USA$	2018
Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, Boulder, CO, USA	2018
Poster	National Science Foundation Macrosystems Biology PI Meeting, $Washington,\ DC,\ USA$	2018
Talk	American Geophysical Union Fall Meeting, New Orleans, LA, USA	2017
$Inivted\ Talk$	Ecological Society of America Annual Meeting, $Portland$ , $OR$ , $USA$	2017
Talk	Atmospheric Climate and Dynamics Seminar, UW Dept. of Atmospheric Sciences, $Seattle,\ WA,\ USA$	2017
2 Talks	22nd Community Earth System Model Workshop, National Center for Atmospheric Research, $Boulder,\ CO,\ USA$	2017
Talk	UW Program on Climate Change Spring Symposium, University of Washington, $Seattle,\ WA,\ USA$	2017
Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, Boulder, CO, USA	2017
Poster	10th Annual Graduate Climate Conference, Pack Forest, WA, USA	2016
Invited Talk	National Oceanographic and Atmospheric Administration (NOAA), $Boulder,\ CO,\ USA$	2016
Talk	21st Community Earth System Model Workshop, National Center for Atmospheric Research, <i>Breckenridge, CO, USA</i>	2016
Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, Boulder, CO, USA	2016
Talk	American Geophysical Union Fall Meeting, San Francisco, CA, USA	2015
Talk	University of Washington Department of Atmospheric Sciences Dynamics Seminar (Master's Defence), Seattle, WA, USA	2015
Poster	9th Annual Graduate Climate Conference, Woods Hole, MA, USA	2015
Talk	Graduate Student Seminar, Program on Climate Change, University of Washington, $Seattle,\ WA,\ USA$	2015

Talk	Land Model Working Group Meeting, National Center for Atmospheric Research, $Boulder,\ CO,\ USA$	2015
Talk	8th Annual Graduate Climate Conference, Pack Forest, WA, USA	2014
Talk	Undergraduate Student Research Award Seminar, University of British Columbia, Vancouver, BC, Canada	2012
Poster	Applied Mathematics Perspectives Mathematical Biology Workshop, University of Victoria, <i>Victoria, BC, Canada</i>	2012

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elect C	o-authored Presentations	
Talk	American Geophysical Union Fall Meeting: "Modeling Boreal Forest Expansion as a Driver of Accelerated Warming and Deglaciation following the Last Glacial Maximum" by G. Shum, A. L. S. Swann, M. M. Laguë. Virtual / San Francisco, CA, USA	2020
Poster	American Geophysical Union Fall Meeting: "How Much Does Plants' Response to Elevated $CO_2$ Influence the Transient Climate Response?" by C. Zarakas, M. M. Laguë, J. T. Randerson, K. Armour, A. L. S. Swann. San Francisco, CA, USA	2019
Talk	American Geophysical Union Fall Meeting: "Can land management alter ecoclimate teleconnections across North America in the face of forest die-off?" by X. Feng, Abigail L. S. Swann, D. D. Breshears, M. M. Laguë, J. P. Field, D. Law, A. Lien, T. Huang, J. Debridge, E. Baldwin, J. R. Soto, L. Lopez-Hoffman. San Francisco, CA, USA	2019
Talk	American Geophysical Union Fall Meeting: "Can land management alter ecoclimate teleconnections across North America in the face of forest die-off?" by X. Feng, Abigail L. S. Swann, D. D. Breshears, M. M. Laguë, J. P. Field, D. Law, A. Lien, T. Huang, J. Debridge, E. Baldwin, J. R. Soto, L. Lopez-Hoffman. San Francisco, CA, USA	2019
Talk	The Future of Earth System Modeling: Biosphere and Land Surfaces (Caltech) "Flexible Complexity as a Tool for Understanding the Role of Land in the Earth System" by Abigail L. S. Swann, M. M. Laguë, G. B. Bonan. <i>Pasadena, CA, USA</i>	2018
Talk	American Geophysical Union Fall Meeting: "Continental-scale consequences of tree die- offs in North America" by Abigail L. S. Swann, <b>M. M. Laguë</b> , E. S. Garcia, J. P. Field, D. D. Breshears, D. J. P. Moore, S. R. Saleska, S. C. Stark, J. C. Villegas, D. Law, D. Minor. <i>Washington, DC, USA</i>	2018
Talk	American Geophysical Union Fall Meeting: "Quantifying the role that terrestrial ecosystems play in Earth's climate" by Abigail L. S. Swann, <b>M. M. Laguë</b> , M. Kovenock. Washington, DC, USA	2018
Poster	American Geophysical Union Fall Meeting: "Evaporative Resistance Equally Important as Albedo in High Latitudes Due to Cloud Feedbacks" by J. Kim, M. M. Laguë, E. J. Dawson, A. L. S. Swann. <i>Washington, DC, USA</i>	2018
Poster	NSF Macrosystems Biology PI Meeting: "Ecoclimate Teleconnections' by A. L. S. Swann, M. M. Laguë*, E. S. Garcia, D. D. Breshears*, J. P. Field, D. J. P. Moore, S. R. Saleska, S. C. Stark, J. C. Villeas, D. J. Law, D. M. Minor. Washington, DC, USA *Presenting Authors. Note: this entry is co-listed in "Presentations"	2018
Talk	American Geophysical Union Fall Meeting: "Does climate care about land?" by E. J. Dawson, M. M. Laguë, A. L. S. Swann. New Orleans, LA, USA	2017

American Geophysical Union Fall Meeting: "Predicting Tree Mortality Die-off Events Associated with Hotter Drought and Assessing Their Global Consequences via Ecoclimate Teleconnections" by D. D. Breshears, C. D. Allen, N. G. McDowell, H. D. Adams, M. Barnes, G. Barron-Gafford, J. B. Bradford, N. Cobb, J. P. Field, R. Froend, J. B. Fontaine, E. S. Garcia, G. E. St. J. Hardy, T. E. Huxman, J. Kala, M. M. Laguë, A. Martinez-Yrizar, G. Matusick, D. M. Minor, D. J. P. Moore, M. Ng, K. X. Ruthrof, S. R. Saleska, S. C. Stark, A. L. S. Swann, J. C. Villegas, A. P. Williams, C. Zou. New Orleans, LA, USA

## Diversity, Equity, & Inclusion Activities

- Workshop "Speaking Up: How Bystanders Can Change the Conversation about Social Bias and PowerPlay Interactive Development." Equity, Diversity, and Inclusion for Global Water Futures at the University of Saskatchewan. Participated in 2-part interactive workshop on interrupting bias.
- 2014-2019 Girls in Science instructor, Burke Museum of Natural History, Seattle, WA. Helped lead 1-3 sessions per year of hands-on lab activities for middle-school aged girls in a women-only environment.
- 2014-2019 University of Washington Department of Atmospheric Sciences Outreach Group. Visited schools to give atmospheric science demos and short talks on weather/climate; led visiting school groups on tours of the UW Atmospheric Sciences Department rooftop observatory.
- 2016-2019 Diversity and Inclusion Group at the Department of Atmospheric Sciences, University of Washington. Founding member of a graduate-student led group (involving students, staff, and faculty) focussed on tackling projects relating to diversity, equity, and inclusion within our department; my particular focus was on arranging for counsellors to the department to give presentations and facilitate discussions relating to depression, axiety, and mental health in graduate school.

# Teaching Experience

- 2020 Western Washington University

  Guest Lecturer: Forest loss and climate change for a "Global Change" graduate course.
- Advanced Climate Dynamics Courses (ACDC) Summer School, Yosemite, CA Invited Lecturer: Summer school theme: "The Anthropocene". Lectured on land-atmosphere interactions, climate controls on vegetation distributions, vegetation impacts on atmospheric processes, historical vegetation change, projections of future vegetation change, and how vegetation may interact differently with the climate under higher CO<sub>2</sub>; discussed vegetation-atmosphere-climate interactions in the field.
- 2017-2019 University of Washington, Seattle, WA

  Guest Lecturer: Advanced Physical Climatology (graduate); Ecological Climatology (undergraduate/graduate); Exploring the Atmospheric Sciences (undergraduate)
- 2016 NATIONAL CENTER FOR ATMOSPHERIC RESEARCH, BOULDER, CO
  Instructor: CLM Tutorial "Modifying the code in CLM" lecture; practical sessions.
- 2014 University of Washington, Seattle, WA **Teaching Assistant:** Global Warming: Understanding the Issues (undergraduate)
- 2012 UNIVERSITY OF BRITISH COLUMBIA, VANCOUVER, BC
  Teaching Assistant: Differential Calculus (undergraduate)

## Grant Reviewer for:

National Science Foundation (Climate and Large-Scale Dynamics; Hydrologic Sciences)

2019, 2020

## Journal Reviewer for:

Science Journal of Climate

Nature Journal of Geophysical Research - Atmospheres

Nature Climate Change Geophysical Research Letters
Nature Geophysics Geoscientific Model Development

Nature Communications Global Planetary Change Environmental Research Letters\*† Journal of Hydrometeorology Current Climate Change Reports Earth System Dynamics

## Service & Outreach

2019	Instructor for the Advanced Climate Dynamics Courses summer school, <i>Yosemite</i> , CA
2014-2019	Girls in Science outreach program, Burke Museum of Natural History, Seattle, WA
2017-2019	Mentoring undergraduate & early graduate students in Atmospheric Science, Seattle, WA
2014-2019	Outreach activities with the UW Department of Atmospheric Sciences, $Seattle$ , $WA$
2016-2019	Diversity and Inclusion Group, Department of Atmospheric Sciences, University of Washington, $Seattle,\ WA$
2016-2018	Founding member of the Program on Climate Change Graduate Student Steering Committee, University of Washington, $Seattle,\ WA$
2016	Chair of the 10th Annual Graduate Climate Conference (GCC10) Organizing Committee, $Seattle,\ WA$
2016	Community Land Model (CLM) 2016 Tutorial instructor, Boulder, CO
2010-2012	Undergraduate Mathematics Volunteer Tutoring, Vancouver, BC, Canada
2012	East Kootenay Regional Science Fair Judge, Cranbrook, BC, Canada

# **Programming Languages**

Python (primary)

FORTRAN 90, MATLAB, MAPLE, TCSH, BASH, NCL, NCO

# Conferences & Workshops

- 2021 CESM Land Model Working Group Winter Meeting, National Center for Atmospheric Research
- 2020 Surface Atmosphere Integrated Field Laboratory (SAIL) Virtual Workshop.
- 2020 Grant Getting, Santa Fe Institute
- 2020 CESM Land Model Working Group Winter Meeting, National Center for Atmospheric Research,  $Boulder,\ CO$
- 2020 Pathways to Scientific Teaching Workshop, University of California, Berkeley Berkeley, CA
- 2020 Berkeley Atmospheric Sciences Colloquium (BASC) Symposium, Berkeley, CA

<sup>\*</sup> IOP Trusted Reviewer based on peer review quality

<sup>†</sup> Some of my reviews for ERL have been used in their new peer-reviewer online training course

- 2019 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA
- 2019 Workshop on Entrenchment: "The Point of No Return", Santa Fe Institute, Santa Fe, NM
- 2019 "The Anthropocene", Instructor at the Advanced Climate Dynamics Courses (ACDC) Summer School, *Yosemite*, *CA*
- 2019 Impacts of Land Use and Land Management on Earth System Evolution, Biogeochemical Cycles, Extremes and Inter-Sectoral Dynamics, Aspen Global Change Institute, Aspen, CO
- 2019 Postdocs in Complexity Conference VI, Santa Fe Institute, Santa Fe, NM
- 2019 24th Community Earth System Model Workshop, National Center for Atmospheric Research, Boulder, CO
- 2019 Postdocs in Complexity Conference V, Santa Fe Institute, Santa Fe, NM
- 2019 CESM Land Model Working Group Winter Meeting, National Center for Atmospheric Research, Boulder, CO
- 2018 American Geophysical Union (AGU) Fall Meeting, Washington, DC
- 2018 Advanced Climate Dynamics Courses (ACDC) Summer School, Finse, Norway
- 2018 23rd Community Earth System Model Workshop, National Center for Atmospheric Research, Boulder, CO
- 2018 UW Program on Climate Change Spring Symposium, University of Washington, Seattle, WA
- 2018 CESM Land Model Working Group Winter Meeting, National Center for Atmospheric Research, Boulder, CO
- 2018 National Science Foundation Macrosystems Biology PI Meeting, Washington, DC
- 2017 American Geophysical Union (AGU) Fall Meeting, New Orleans, LA
- 2017 Stand Up for Science: Graduate Student Advocacy Training (Union of Concerned Scientists Workshop), Seattle, WA
- 2017 Ecological Society of America Annual Meeting, Portland, OR
- 2017 22nd Community Earth System Model Workshop, National Center for Atmospheric Research, Boulder, CO
- 2017 UW Program on Climate Change Spring Symposium, University of Washington, Seattle, WA
- 2017 CESM Land Model Working Group Winter Meeting, Boulder, CO
- 2017 American Meteorological Society Annual Meeting, Seattle, WA
- 2016 10th Annual Graduate Climate Conference, Pack Forest, WA
- 2016 21st Community Earth System Model Workshop, National Center for Atmospheric Research, Boulder, CO
- 2016 Ecosystem Demographics in the Earth System Workshop, National Center for Atmospheric Research, Boulder, CO
- 2016 Land Model Working Group Winter Meeting & Joint CESM Winter Meeting, National Center for Atmospheric Research, Boulder, CO
- 2015 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA
- 2015 9th Annual Graduate Climate Conference, Woods Hole, MA
- 2015 Aosta Alpine Summer School, Course XXIII: Land-Atmosphere Interactions, Institute of Atmospheric Sciences and Climate (ISAC) CRN (Turin, Italy) & the Centre national de la recherche scientifique (CNRS) (France), Valsavarenche, Aosta Valley, Italy
- 2015 CESM Land Model Working Group Winter Meeting, National Center for Atmospheric Research, Boulder, CO
- 2014 8th Annual Graduate Climate Conference, Pack Forest, WA
- 2014 Community Land Model (CLM) Tutorial, National Center for Atmospheric Research, Boulder, CO

2011	Pacific I Biology	Workshop,	University of	atical Scie f Victoria,	Victoria, BC,	Mathematics Canada	Perspectives	Mathematical