Michael Allen

Department of Geography
University of California, Santa Barbara
1832 Ellison Hall Santa Barbara, CA 93106 USA
✉ *m_allen@ucsb.edu*
www.mallenlab.com

Education

2017 – **Ph.D. Geography**, *University of California, Santa Barbara*, Santa Barbara, CA USA.
Advisor: Dr. Joseph P. McFadden

2015 – 2017 **M.Sc. Geography**, *University of Western Ontario*, London, ON Canada.
Advisor: Dr. James A. Voogt
Thesis: *A method for hemispherical ground based remote sensing of urban surface temperatures.*

2011 – 2015 **B.A. Environmental Studies**, *University of Portland*, Portland, OR USA.
Advisor: Dr. Ted C. Eckmann
Thesis: *Seasonal and diurnal patterns of temperature inversion formation and breakup in a topographically complex urban environment.*

Awards and honors

2017 UWO Dept. of Geography E. G. Pleva Award for Teaching Excellence *(2 recipients/yr)*
2017 AMS Board on Urban Environment Outstanding Student Oral Presentation Award *(3 recipients/meeting)*
2017 ASU John F. Lounsbury Travel Fellowship, *declined*
2017 *finalist,* IEEE Joint Urban Remote Sensing Event Student Paper Competition
2017 IEEE Joint Urban Remote Sensing Event Student Travel Grant
2016 AGU Dr. Edmond M. Dewan Young Scientist Scholarship *(1 recipient/yr)*
2016 UWO Dept. of Geography E. G. Pleva Award for Teaching Excellence *(2 recipients/yr)*
2016 AMS Annual Meeting Student Travel Grant
2015 – 2017 UWO International Graduate Research Scholarship
2015 *1st Place* AGU Fall Meeting Virtual Poster Session Peer Judging Panel
2015 *2nd Place* AGU Fall Meeting Virtual Poster Session Expert Judging Panel
2014 University of Portland Undergraduate Research Program Stipend
2012 *1st Place* University of Portland School of Engineering Annual Freshman Design Competition
2011 – 2015 University of Portland President's Scholarship

Referred publications

in preparation

1. **Michael A. Allen**, J. A. Voogt, and A. Christen. A method for hemispherical ground based remote sensing of urban surface temperatures.
2. **Michael A. Allen**, J. A. Voogt, and A. Christen. A climatology of surface urban heat islands derived from hemispherical radiometric surface temperatures.

referred proceedings

1. **Michael A. Allen**, J. A. Voogt, and A. Christen. Towards a continuous climatological assessment of urban surface heat islands. *Joint Urban Remote Sensing Event*, pages 1 – 4, 2017.
2. **Michael A. Allen**, T. Eckmann, and B. Holmes. Seasonal and diurnal patterns of temperature inversion formation and breakup in a topographically complex urban environment. *National Council on Undergraduate Research*, 5: 430 – 438, 2015.

Conference presentations (†poster, *oral)

1. **Michael A. Allen**, J. A. Voogt, and A. Christen. A climatology of urban surface heat islands derived from hemispherical radiometric surface temperatures. *American Meteorological Society 97th Annual Meeting*, Seattle, WA, USA, 2017.*
2. **Michael A. Allen**, J. A. Voogt, and A. Christen. A Method to Assess Urban Surface Heat Islands using Hemispherical Radiometric Temperatures. *American Geophysical Union Fall Meeting*, San Francisco, CA, USA, 2016.*
3. **Michael A. Allen**, T. Eckmann, and B. Holmes. Quantifying Seasonal Variations in the Atmospheric Boundary Layer in Portland, Oregon to Characterize Local Air Pollution Events. *National Conference on Undergraduate Research*, Cheney, WA, USA, 2015.*
4. Brooke A. Holmes, **M. A. Allen**, T. Eckmann. Comparing Growth Rates of Succulent Species and Water Retention of Novel Substrates to Optimize Urban Green Roof Efficiencies in the Pacific Northwest. *National Conference on Undergraduate Research*, Cheney, WA, USA, 2015.*
5. **Michael A. Allen**, K. Hamilton, D. Suto, S. Ellett, and M. Sherif. Tracing Climate Change Feedback Loops through Washington State Aqua/Agriculture. *University of Portland Founders' Day*: Portland, OR, USA, 2015.*
6. **Michael A. Allen**, B. Holmes, and T. Eckmann. Assessing Atmospheric Stability in North Portland to Investigate Industrial Air Pollution Events. *University of Portland Founders' Day*, Portland, OR, USA, 2015.*
7. **Michael A. Allen**, B. Holmes, and T. Eckmann. Assessing Atmospheric Stability in North Portland to Investigate Industrial Air Pollution Events. *Proceedings of the Oregon Academy of Science Annual Meeting*, Portland, OR, USA, 2015.*
8. Brooke A. Holmes, **M. A. Allen**, T. Eckmann. Analysis of Substrate Water Retention and Xeric Succulent Species Growth for Optimization of Green Roofs in Portland, OR *Proceedings of the Oregon Academy of Science Annual Meeting*, Portland, OR, USA, 2015.*
9. Samantha G. Wright , **M. A. Allen**, T. Eckamnn. Spatial Interpolation with GIS to Map Industrial Air Pollution in North Portland. *Proceedings of the Oregon Academy of Science Annual Meeting*, Portland, OR, USA, 2015.†
10. Brooke A. Holmes, **M. A. Allen**, T. Eckmann. Quantifying Performance of Succulents and Novel Substrates for Extensive Green Roof Applications in the US Pacific Northwest. *American Geophysical Union Fall Meeting*, San Francisco, CA, USA, 2015.*
11. **Michael A. Allen**, B. Holmes, and T. Eckmann. Measuring Urban Microclimates and Vertical Temperature Profiles in Portland, Oregon for Analyzing Energy Budgets and Air Pollution Sources. *American Geophysical Union Fall Meeting*, San Francisco, CA, USA, 2015.†
12. Brooke A. Holmes, **M. A. Allen**, T. Eckmann. Performance of New Substrates, *Sedum spp.*, and *Dudleya*

lanceolata on Green Roofs *M. J Murdock College Science Research Conference*, Vancouver, WA, USA, 2014.†

13. **Michael A. Allen**, B. Holmes, and T. Eckmann. Analyzing Urban Microclimates and Atmospheric Stability in Portland, OR *M. J Murdock College Science Research Conference*, Vancouver, WA, USA, 2014.†

Research Experience

2017 – **Research Assistant**, *Dept. of Geography, University of California, Santa Barbara.*
Advisor: Dr. Joseph P. McFadden

2015 – 2017 **Research Assistant**, *Dept. of Geography, University of Western Ontario.*
Advisor: Dr. James A. Voogt
- Developed methodologies for 3-dimensional atmospheric correction and urban surface temperature retrieval using MODTRAN and the Surface-Sensor-Sun Urban Model.

2015 – 2017 **Research Assistant**, *Dept. of Environmental Studies, University of Portland.*
Advisor: Dr. Ted C. Eckmann
- Installed and maintained an array of remote meteorological weather stations.

Teaching Experience (*lower division, †upper division)

2017 – **Teaching Assistant**, *Dept. of Geography, University of California, Santa Barbara.*
Urban Environment† *2018*
Remote Sensing of the Environment* *2017*

2014 – 2015 **Teaching Assistant**, *Dept. of Geography, University of Western Ontario.*
Physical Geography* *2016, 17*
Weather and Climate† *2015, 16*

2014 **Summer Research Mentor**, *Dept. of Environmental Studies, University of Portland.*

Vocational/Misc. Experience

2014 – 2015 **Environmental Analysis Intern**, *Vigor Industrial*, Portland, OR.
- Analysis of in-situ micro-meteorological and air pollution data to ameliorate health and nuisance odor concerns.
- Coordinate data collection with EPA and other stakeholders.

Technical Skills

Programming	Python, Shell, LaTeX, FORTAN 77/90 (familiar), C# (familiar)
Utilities	Idrisi, PCI Geomatica, GIT
Design	HTML, Inkscape/Illustrator, Photoshop, Seaborn, matplotlib
Languages	English (native), Spanish (proficient)

Service

2015 – 2017	PSAC 610 (Graduate and PostDoc Student Union) Departmental Representative
2016	Organizing Member, University of Western Ontario Orientation Committee
Reviewer	
	AGU Undergraduate Virtual Poster Sessions *2015 –*
	IEEE Journal of Selected Topics in Applied Remote Sensing (JSTARS) *2016 –*

Outreach

1. Feb 2016 "Urban Climate: Feeling the heat with Michael Allen.", University of Western Ontario Grad-cast Radio.
2. April 2015 "Why do we study environmental science?", University of Portland College of Arts and Sciences Open House.