

Zachary Fair

Curriculum Vitae

PERSONAL DETAILS

Address 2455 Hayward Street, Ann Arbor, MI
Mail zhfair@umich.edu

EDUCATION

Ph.D. Candidate, Climate and Space Science 2016-Present

University of Michigan
Advisor: Dr. Mark Flanner
Concentration: Active remote sensing in the Arctic

Master of Science, Climate and Space Science 2016-2018

University of Michigan
Advisor: Dr. Xianglei Huang
Concentration: Turbulent heat flux modeling in the Arctic

Bachelor of Science, Meteorology 2011-2015

North Carolina State University
Minor: Physics
Advisor: Dr. Nicolas Meskhidze

RESEARCH EXPERIENCE

Graduate Research Assistant 2016-Present

University of Michigan
Advisor: Dr. Mark Flanner
Effective: September 2016

Post-Undergraduate Intern 2016

NASA Langley Research Center
Mentor: Dr. Patrick Taylor
Effective: January 2016 - August 2016
Concentration: Greenland cloud radiative effects

Undergraduate Research Assistant 2014-2015

North Carolina State University
Mentor: Dr. Nicolas Meskhidze
Effective: September 2014 - December 2015
Concentration: Volatility of marine aerosol

Undergraduate Intern 2015

NASA Langley Research Center
Mentor: Dr. Margaret Pippin
Effective: June 2015 - August 2015
Concentration: Aerosol optical depth instrumentation

ORAL PRESENTATIONS

1. Fair, Z., P. Taylor, (2016). *On the contribution of surface energy budget variability to Greenland Ice Sheet mass loss for 2002-2015*. Division Seminar, 10 August, Hampton, VA.

POSTER PRESENTATIONS

1. Fair, Z., M. Flanner, K. Brunt, A. Gardner, B. Smith, (2019). *Using ICESat-2 and Operation IceBridge altimetry for supraglacial lake depth retrievals*. AGU Fall 2019 Meeting, 11 December, San Francisco, CA.
2. Fair, Z., M. Flanner, K. Brunt, A. Gardner, (2019). *Lakes and Lasers: Using ICESat-2 and Operation IceBridge altimetry for supraglacial lake depth retrievals*. GRC Radiation and Climate, 22-23 July, Bates College, ME.
3. Fair, Z., M. Flanner, K. Brunt, (2018). *Detection of supraglacial lakes and melt ponds using airborne laser altimetry*. AGU Fall 2018 Meeting, 10 December, Washington DC.
4. Fair, Z., X. Huang, J. Wang, Y. Deng, (2017). *The applicability of maximum entropy production theory for turbulent heat flux modeling over the Arctic*. AGU Fall 2017 Meeting, 15 December, New Orleans, LA.
5. Fair, Z., P. Taylor, (2016). *Investigating the role of clouds and the surface energy budget on Greenland Ice Sheet melt: an introduction*. Intern Poster Session, 3 May, Hampton, VA.
6. Fair, Z., R. Slank, A. Rodjom, P. Sanchez, B. Phillips, (2015). *Analysis of the role of meteorology on air pollution*. Intern Poster Session, 30 July, Hampton, VA.
7. Phillips, B., P. Sanchez, R. Slank, Z. Fair, A. Rodjom (2015). *Evaluation of Calitoo and GLOBE sun photometers for TEMPO validation*. Intern Poster Session, 30 July, Hampton, VA.

TEACHING EXPERIENCE

1. Grader, *CLIMATE 475 - Climate Physics* (Fall 2019)
2. Graduate Student Instructor, *CLIMATE 105 - Our Changing Atmosphere* (Winter 2019)
3. Grader, *CLIMATE 532 - Radiative Transfer* (Winter 2018)

EXTRACURRICULAR ACTIVITIES

CLaSP Graduate and Undergraduate Student Organization
University of Michigan

Positions Held: President (January 2019 - Present)

2016-present

Michigan Geophysical Union <i>University of Michigan</i> Positions Held: Planning Committee Member	2018-Present
Climate Blue <i>University of Michigan</i> Positions Held: Treasurer (April 2018 - April 2019)	2017-2019
North Carolina Science Olympiad, State Competition <i>North Carolina State University</i> Positions Held: Proctor/Grader, Astronomy and Meteorology	2012-2016
American Meteorological Society, Student Chapter <i>North Carolina State University</i> Positions Held: President (August 2014 - April 2015)	2012-2015
Weather Broadcasting Club <i>North Carolina State University</i> Positions Held: Radio Broadcast Supervisor (January 2014 - December 2015)	2012-2015

AWARDS

1. NASA Earth and Space Science Fellowship (NESSF), 2017-2020
2. Carolinas Air Pollution Control Association Scholarship, 2015
3. College of Sciences Dean's List, 2012-2015

SKILLS

Programming MATLAB, PYTHON, SHELL, LATEX, HTML, NCL

Software IDV, NMAP2, IGOR, ENVI, QGIS

MEMBERSHIPS

1. American Geophysical Union (AGU)
2. American Meteorological Society (AMS)