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Education

- Ph.D. Earth and Space Sciences, University of Washington, Seattle, June 2014.
- M.S. Geophysics, University of Washington, Seattle, 2007.
- B.S. Mathematics, University of San Francisco, 2003.
 - *Minor*: Philosophy
 - *Honors*: Magna Cum Laude

Teaching Experience

Higher Education

- **Pacific Lutheran University: Visiting Assistant Professor**
Department of Geosciences and Department of Environmental Studies
Courses:
 - Fall 2014, Spring 2015 & 2016 *Conservation of Natural Resources*
 - January 2015 *Global Climate Change*
 - Spring and Fall 2015 *Environmental Methods of Investigation*
 - January 2016 *Computer-Aided Mapping and Analysis (GIS)*
- **Colorado College: Co-Instructor**
Department of Environmental Science
Courses:
 - April 2011 *Global Climate Change*
- **University of Washington: Teaching Assistant**
Department of Earth and Space Sciences
Courses:
 - Spring 2014 *Mathematical Methods in the Earth Sciences*
 - Fall 2013 *Principles of Glaciology and the Cryosphere*
 - Winter 2006 & 2007 *Introductory Geology*
- **University of Washington: Graduate Seminar Organizer**
Program on Climate Change
Term-length seminars organized:
 - Winter 2013 *Everything You Ever Wanted to Know About Climate But Were Too Afraid to Ask: Part II*

Winter 2006 *Mid-Holocene African Aridity: Reconciling Climate Dynamics with Observations of the African Humid Period*

• **University of San Francisco: Supplemental Instructor**

Learning and Writing Center

Courses:

Fall 2001 through Spring 2003 *Statistics*

• **University of San Francisco: Teaching Assistant**

Department of Mathematics

Courses:

Fall 2000 & Spring 2001: *Calculus I*

Junior High

• **Ursuline Academy: Teacher**

Courses:

Fall 2003 – Spring 2004 *Pre-Algebra*

Fall 2003– Spring 2004 *Algebra*

Mentoring and Tutoring

University of Washington: Tutor

Student Athlete Academic Services

Courses:

Fall 2007 *Introduction to Geology*

Fall 2007..... *Space and Space Travel*

Research Experience

University of Washington, Department of Earth and Space Sciences

Current Research

What Would Happen to the General Circulation of the Atmosphere if the West Antarctic Ice Sheet Collapsed?

Colleagues: Dargan Frierson, Eric Steig, Nathan Steiger

PhD Thesis

Relationships Between Climate and Geophysical Processes: What Climate Histories Can Be Inferred from Glaciers, Lakes, and Ice Streams?

Advisers: Gerard Roe, Howard Conway

January 2010–June 2014.

• **Macro-Scale Stability of West Antarctic Ice Sheet**

Colleagues: Gerard Roe, Howard Conway, Greg Balco, Claire Todd

January 2010–June 2014.

- **Lake Level Variability in a Closed Basin System**
Colleagues: Summer Rupper and Gerard Roe
October 2009–June 2014.
- **Geometric Influences on Glacier Length Fluctuations**
Colleagues: Gerard Roe and Ed Waddington
Jan 2010–Jan 2011.

Master's Project

Glacier Variations in Response to Interannual Climate Variations

Advisers: Gerard Roe and Bernard Hallet
September 2005–June 2007.

Field Work

Last Glacial Maximum and Deglaciation Chronology for the Foundation Ice Stream and South-east Weddell Sea Embayment.

Advisers: Greg Balco and Claire Todd
December–January, 2010/2011 and 2011/2012.
Field work on site at the Foundation Ice Stream, West Antarctica.

Isotopic ratios in gas-phase HNO_3 and snow nitrate at Summit, Greenland.

Advisers: Eric Steig and Julia Jarvis
March –April 2006 and July 2007.
Field work on site at Summit Station, Greenland.

Summit Station, Greenland

Summit Station Science Technician

CH2MHill, Polar Field Services &
National Oceanic and Atmospheric Administration, Earth System Research Laboratory.
February–April 2008 and November 2008–June 2009.
Field work on site at Summit Station, Greenland.

Publications & Presentations

Publications

- **Huybers, K.** Rupper, S., and Roe, G.H. (2015) Response of closed basin lakes to interannual climate variability, *Climate Dynamics* DOI: 10.1007/s00382-015-2798-4.
- Steig, E.J., **Huybers, K.**, Singh, H.A., Steiger, N.J., Ding, Q., Frierson, D.M., Popp, T., and White, J.W. (2015) Influence of West Antarctic Ice Sheet collapse on Antarctic surface climate. *Geophysical Research Letters* Volume 42, 4862-4868.
- Campbell, S., Balco, G., Todd, C., Conway, H. **Huybers, K.**, Simmons, C., and Vermeulen, M. (2013) Radar-detected englacial stratigraphy in the Pensacola Mountains, Antarctica: implication for recent changes in ice flow and accumulation, *Annals of Glaciology* Volume 54, Issue 63 pp. 91-99.
- **Huybers, K.** and Roe, G.H. (2009) Spatial patterns of glaciers in response to spatial patterns in regional climate, *Journal of Climate* Volume 22, Issue 17 pp. 4606-4620.
- **Huybers, K.** Roe, G.H., and Conway, H. Basal topographic controls on the stability of the West Antarctic Ice Sheet, *pending revisions in Geophysical Research Letters*.

- Balco, G., Todd, C. **Huybers, K.**, Campbell, S., Vermeulen, M., Hegland, M., Goehring, B.M., and Hillebrand, T., Cosmogenic-Nuclide Exposure Ages from the Pensacola Mountains Adjacent to the Foundation Ice Stream, Antarctica. *in review at American Journal of Science.*
- Rupper, S., Cook, E., Schaefer, J., Maurer, J., **Huybers, K.**, Krusic, P., Putnam, A., Tsering, K., Rigzin, T., and Sharma, P., Recent Himalayan glacier retreat rates anomalous in at least the past 800 years, *in prep.*

Selected Presentations

- **Poster Presentation**
The global and local climatic response to the collapse of the West Antarctic Ice Sheet
Huybers, K., Frierson, D., Steig, E., Singh, H., Steiger, N., and Bitz, C..
American Geophysical Union Fall Meeting
San Francisco, CA, December 15-19, 2014.
- **Poster Presentation**
The timing and magnitude of lake-level variability, in response to interannual climate variability
Huybers, K., Rupper, S., and Roe, G.
American Geophysical Union Fall Meeting
San Francisco, CA, December 9-13, 2013.
- **Oral Presentation**
What would happen to the general circulation of the atmosphere if the West Antarctic Ice Sheet collapsed?
Huybers, K., Steiger, N., and Frierson, D.
Graduate Climate Conference
Woods Hole, MA, November 1-3, 2013.
- **Oral Presentation**
Linkage between Grounding Line Dynamics and Geological Observations in the Weddell Sea Sector of Antarctica
Huybers, K., Roe, G., Conway, H., Balco, G. and Todd, C.
American Geophysical Union Fall Meeting
San Francisco, CA, December 3-7, 2012.
- **Oral Presentation**
Linkage between Grounding Line Dynamics and Geological Observations in the Weddell Sea Sector of Antarctica
Huybers, K., Roe, G., Conway, H., Balco, G. and Todd, C.
West Antarctic Ice Sheet Meeting
Pack Forest, WA, September 19-21, 2012.
- **Poster Presentation**
Geometric Influences on Glacier Variation and Correlation
Huybers, K., Roe, G., and Waddington, E.
Graduate Climate Conference
Woods Hole, MA, October 28-30, 2011.
- **Oral Presentation**
Huybers, K., Roe, G., and Waddington, E.
Geometric Influences on Glacier Variation and Correlation
Northwest Glaciologists Meeting
Portland, OR, October 13-15, 2011.
- **Oral Presentation**
Huybers, K., Rupper, S., and Roe, G.
Lake Level Changes in Response to Interannual Climate Variability
Graduate Climate Conference
Pack Forest, WA, October 15-17, 2010.
- **Oral Presentation**

Huybers, K. and Roe, G.
Spatial Patterns in Glaciers in Response to Spatial Patterns in Climate
 Climate, Glaciers, Society Mini-Conference
 Lamont-Doherty Earth Observatory, November 11-13, 2009.

- **Oral Presentation**

Huybers, K. and Roe, G.
Understanding Glaciers as an Indication of Regional Climate Variability.
 American Geophysical Union, Fall Meeting
 December 2006.

Awards & Fellowships

- **Robert and Nadine Bassett Fellowship**

University of Washington Department of Earth and Space Sciences
 2013–2014 academic year

- Merit award that provides one quarter of research fellowship support.

- **Ferrel Fund Geological Sciences Research Award**

University of Washington Department of Earth and Space Sciences
 2012–2013 academic year

- Monetary stipend to pursue research.

- **Communication Fellow**

Seattle Pacific Science Center
 February 2010 – present

- Took a course in communicating my research to the public in interesting and accessible ways.
- *see Service Activities, below.*

- **Program on Climate Change Fellow**

University of Washington Program on Climate Change
 2004–2005 academic year

- Full tuition and stipend paid for an academic year, for promising students who study climate science.

- **Merit Scholar**

University of San Francisco
 1999–2003 academic years

- 75 percent of tuition was awarded, based on academic performance.

- **Dean's List**

University of San Francisco.
 1999–2003.

Professional & Service Activities

- **Peer-reviewer for journal articles.**

- **Co-chair of Graduate Climate Conference organizing committee**

Graduate Climate Conference VI
 November 2011-October 2012

- Helped secure a \$10,000 grant from the National Science Foundation.
- Oversaw and worked with other volunteers on all aspects of the organization: advertisement, abstract submission and selection, fundraising, communication with attendees, interfacing with the conference center, and documenting the scientific program.

- **Sierra Club's Seattle Inner City Outings Leader**
September 2005–December 2007 & January 2010–Present.
 - Inner City Outings provides monthly opportunities for urban youth in the Seattle area to explore, enjoy and protect the natural world.
 - Served as team lead for the 2006-2007, 2013-2014, and 2014-2015 academic years.
- **Seattle Public Library Homework Helper**
September 2012–June 2103.
- **Pacific Science Center Science Communication Fellow**
February 2010 – June 2014.
 - With the exhibit that I created during my fellowship, I explain ice-sheet and sea-level connections to museum visitors, at Polar Science Weekend and Scientist Spotlight events.
- **Graduate Student Representative to the Faculty**
University of Washington, Department of Earth and Space Sciences
2010-2011 academic year.
- **Member, American Geophysical Union**
2004–2007, 2009–Present.
- **Member, University of Washington Program on Climate Change**
September 2004–June 2014.

Workshops Attended

- **Advanced Climate Dynamics Courses**
Dynamics of the Last Deglaciation
Nyksund, Norway, August 19–31, 2013.
- **Advanced Climate Dynamics Courses**
Ice Sheet–Ocean Interactions
Lyngen, Norway, June 8–June 19, 2010.
- **Climate, Glaciers, Society Mini-Conference**
Lamont-Doherty Earth Observatory, November 11-13, 2009.
- **University of Washington Program on Climate Change Summer Institute**
Atmosphere-Ocean-Ice Shelf Interactions
San Juan Island, WA, September 16–18, 2012.
- **University of Washington Program on Climate Change Summer Institute**
The Water Cycle in a Changing Climate
San Juan Island, WA, September 14–16, 2011.
- **University of Washington Program on Climate Change Summer Institute**
Anthropogenic CO₂ Emissions: Projections, Mitigating Technologies and Policies
Leavenworth, WA, September 20–23, 2006.
- **University of Washington Program on Climate Change Summer Institute**
El Niño: Past, Present and Future
Leavenworth, WA, September 18–21, 2005.