

Education

- present **Ph.D. in Meteorology and Atmospheric Science**, Department of Meteorology and Atmospheric Science, The Pennsylvania State University, University Park, Pennsylvania. Advisors: Fuqing Zhang and Richard Alley
- 2012 **M.S. in Atmospheric Sciences, Oceanography and Climate**, Department of Meteorology, Stockholm University, Stockholm, Sweden.
- 2010 **B.S. in Meteorology**, Department of Meteorology, Stockholm University, Stockholm, Sweden.

Publications

- 2016 **Chen, H. W.**, R. B. Alley, and F. Zhang: Interannual Arctic sea-ice variability and associated winter weather patterns: A regional perspective for 1979–2014. *Journal of Geophysical Research–Atmospheres*. In review.
- 2016 **Chen, H. W.**, F. Zhang, and R. B. Alley: The robustness of midlatitude weather pattern changes due to Arctic sea ice loss. *Journal of Climate*, **29**, 7831–7849, doi:10.1175/JCLI-D-16-0167.1.
- 2013 **Chen, H. W.**, Q. Zhang, H. Körnich, and D. Chen: A robust mode of climate variability in the Arctic: The Barents Oscillation. *Geophysical Research Letters*, **40**, 2856–2861, doi:10.1002/grl.50551.
- 2013 Chen, D. and **H. W. Chen**: Using the Köppen classification to quantify climate variation and change: An example for 1901–2010. *Environmental Development*, **6**, 69–79, doi:10.1016/j.envdev.2013.03.007.

Honors and awards

- 2016 **Stiftelsen Öfverdirektör Elis Sidenbladhs fond**, Royal Swedish Academy of Sciences.
- 2014 **Hans Neuberger Award**, The Pennsylvania State University.
- 2014 **Chi Epsilon Pi**, National meteorology honors society.

Research experience

- 2013–present **Research assistant**, Department of Meteorology and Atmospheric Science, The Pennsylvania State University, University Park, Pennsylvania.
Currently developing an Ensemble Kalman Filter data assimilation system using the Weather Research and Forecasting Model to identify carbon dioxide sources and sinks.
Performed sensitivity experiments with perturbed sea ice in Community Atmosphere Model.
Analyzed regional Arctic sea ice variability using satellite data.
Participated in the ACT-America flight campaign to measure carbon dioxide in the atmosphere and contributed to weather forecasting, flight planning, and data analysis.

Teaching experience

2013–2015 Department of Meteorology and Atmospheric Science, The Pennsylvania State University, University Park, Pennsylvania.

Introduction to Programming Techniques for Meteorology:

Instructor of record (Spring 2015), designed the course and served as the sole instructor.
Teaching assistant (Spring 2013).

Applications of Computers to Meteorology:

Co-instructor (Fall 2013), held lectures and contributed to course structure and content.
Teaching assistant (Spring 2014, Fall 2014).

Synoptic Meteorology Laboratory:

Teaching assistant (Fall 2015), held lectures and led weather forecast discussions.

Work experience

2008 **Software programmer**, IVL Swedish Environmental Research Institute, Gothenburg, Sweden.

Developed programs in Fortran to process data from atmospheric and air chemistry models.

Computer skills

OS	Linux, Unix, Windows, Mac OS X	graphics	Adobe Photoshop, Inkscape
programming	Python, Fortran, C++, C	typography	L ^A T _E X
numerical	MATLAB, CDO, Mathematica	office suites	Microsoft Office, LibreOffice
scripting	Shell scripts (Bash, Zsh, etc.)	miscellaneous	GrADS, NetCDF, HTML, CSS, Git,
models	WRF, CAM, SCAM		Subversion, Qt, Adobe Premiere

Languages

native	Swedish (native speaking, reading, and writing)
fluent	English (fluent speaking, reading, and writing)
mother tongue	Standard Chinese (fluent speaking, basic reading and writing)
basic	German (basic speaking, reading, and writing)