

CONTACT INFORMATION

Department of Marine and Coastal Sciences
Rutgers University
New Brunswick, NJ 08901 USA

E-mail: dawei.li@rutgers.edu
<http://dw-li.github.io>

RESEARCH INTERESTS

- Earth system modeling, Climate model hierarchy
- Paleoclimate, Glacial cycles
- Sea ice, Ice sheet dynamics
- Large-scale atmospheric and oceanic circulations
- Evolution of life and the Earth system, Astrobiology, Geoengineering

EDUCATION

- ▣ **Ph.D.** in Geophysical Sciences, **University of Chicago** 2015
Department of Geophysical Sciences, University of Chicago, Chicago, IL
 - Thesis: *Physical Factors Governing the Surface Temperature of Snowball Earth*
 - Advisor: Raymond T. Pierrehumbert
 - Area of study: climate dynamics, paleoclimate, ice sheet dynamics, sea ice
- ▣ **M.S.** in Atmospheric Sciences, **Peking University** 2009
School of Physics, Peking University, Beijing, China
 - Thesis: *Seasonal Migration of ITCZ and Variations of the Hadley Circulation*
 - Advisor: Yongyun Hu
 - Area of study: general circulation of the atmosphere
- ▣ **B.S.** in Physics, **Peking University** 2006

PROFESSIONAL EXPERIENCES

- ▣ **Rutgers University** 2018 –
Department of Marine and Coastal Sciences, New Brunswick, NJ
Postdoctoral Associate
 - Area of research: Earth system modeling, biogeochemistry
- ▣ **Princeton University** 2015 – 2017
Atmospheric and Oceanic Sciences, Princeton, NJ
Postdoctoral Research Associate
 - Area of research: Climate dynamics, Arctic sea ice, physical oceanography
- ▣ **University of Chicago** 2009–2014
Department of Geophysical Sciences, Chicago, IL
Graduate Research Assistant

SERVICE

Reviewer for:

- *Geophysical Research Letters*
- *Climate Dynamics*
- *Journal of Climate*
- *Journal of Geophysical Research*

SELECTED AWARDS

- May-Fourth Graduate Scholarship, Peking University 2008
- Guang-Hua Graduate Scholarship, Peking University 2007

TEACHING

Rugers University, *Invited Instructor (3 months)*

- Building and Maintaining a Habitable Planet 2017

University of Chicago, *Teaching Assistant*

- Global Warming: Understand the Forecast, *David Archer* 2011, 2014
- Global Warming: Understand the Forecast, *Douglas MacAyeal* 2012, 2013
- Climate Dynamics of the Earth and Other Planets, *Ray Pierrehumbert* 2011
- Natural Hazards, *Noboru Nakamura* 2011
- Climate Dynamics of the Earth and Other Planets, *Noboru Nakamura* 2010

PUBLICATIONS

Published and in review:

- Li, D., R. Zhang, and T.R. Knutson 2018: Comparison of Low-Frequency Variability of Summer Arctic Sea Ice in Three Coupled Climate Models, *Journal of Climate*, 30, 3, 1205-1226.
- Li, D., R. Zhang, and T.R. Knutson 2017: On the Discrepancy between Observed and CMIP5 Multi-Model Simulated Barents Sea Winter Sea Ice Decline, *Nature Communications*, 8, 14491, doi: 10.1038/ncomms14991.
- Li, D. 2015: Physical Factors Governing the Surface Temperature History of Snowball Earth, *Ph.D. Dissertation*, University of Chicago.
- Abbot, D. S., A. Voigt, D. Li, G. Le Hir, R. T. Pierrehumbert, M. Branson, D. Pollard, D. D. B. Koll 2013: Robust elements of Snowball Earth atmospheric circulation and oases for life, *Journal of Geophysical Research: Atmospheres*, 118, 12.
- Li, D., and R. T. Pierrehumbert 2011: Sea glacier flow and dust transport on Snowball Earth, *Geophys. Res. Lett.*, 38, L17501, doi: 10.1029/2011GL048991.
- Hu, Y., D. Li, and J. Liu 2007: Abrupt seasonal variation of the ITCZ and the Hadley circulation. *Geophys. Res. Lett.*, 34, L18814, doi: 10.1029/2007GL030950.

CONFERENCE PRESENTATIONS

- Li, D., Anthropogenic changes in mid-latitude storm and blocking activities in observations and climate models, In: *AGU Fall Meeting*, New Orleans, LA, 11-15 December, 2017.
- Li, D., The impact of ocean heat transport on Arctic sea ice, In: *AMS Annual Meeting*, Seattle, WA, 22-26 January, 2017.
- Li, D., R. Zhang, and T.R. Knutson, Comparison of Low-Frequency Variability of Summer Arctic Sea Ice Extent in Three Coupled Climate Models. In: *AGU Fall Meeting*, San Francisco, CA, 14-18 December, 2015.
- Li, D. and R.T. Pierrehumbert, The effect of dust on Snowball Earth climate. In: *AGU Fall Meeting*, San Francisco, CA, 9-13 December, 2013.
- Li, D. and R.T. Pierrehumbert, Dust transport by sea glacier flow and termination of Snowball Earth. In: *AGU Fall Meeting*, San Francisco, CA, 3-7 December, 2012.
- Li, D. and R.T. Pierrehumbert, Sea glacier flow and the climate of Snowball Earth. In: *6th Graduate Climate Conference*, Pack Forest, WA, 26-28 October, 2012.
- Li, D. and R.T. Pierrehumbert, Sea-glacier flow in frozen worlds. In: *18th Conference on Atmospheric and Oceanic Fluid Dynamics*, Spokane, WA, 13-17 June, 2011.

INVITED PRESENTATIONS

- Physical factors governing the surface temperature history of Snowball Earth, *Rutgers University*, Piscataway, NJ, September, 2017.
- How Cold was the Snowball Earth? – Exploring Cloud, Ice, and Dust in Cold Climate, *Geophysical Fluid Dynamics Laboratory*, Princeton, NJ, September, 2014.
- Viscous Flows of Thick Marine Ice, *Peking University*, Beijing, China, August, 2011.

TECHNICAL SKILLS

- Python, NCL/PyNGL, MATLAB, Fortran, UNIX/Linux shell script
- Model hierarchy: idealized and comprehensive climate models
- Coupling climate models with external numerical codes using Python
- Code management with Git