

Jonah Bloch-Johnson

Department of the Geophysical Sciences
University of Chicago
5734 S. Ellis Avenue
Chicago, Illinois 60637
jsbj@uchicago.edu – <http://jonah.org>

EDUCATION

University of Chicago (2012 - *expected Summer 2018*), Ph.D. candidate in Geophysical Sciences.
Supervisors: Dorian Abbot, Ray Pierrehumbert
Topic: Climate feedback temperature dependence
Columbia University (2005 - 2008), B.A. in Mathematics and Music.
Oberlin College and Conservatory (2003 - 2005), pursued B.A. in Mathematics and B.M. in Music Composition.

CURRENT RESEARCH

Bloch-Johnson, J., and D. S. Abbot. Nonlinear equilibrium climate sensitivity in a perturbed physics ensemble (*in prep.*)
Bloch-Johnson, J., M. Rugenstein, and D. S. Abbot. Spatial feedbacks from internal variability (*in prep.*)
Rugenstein, M., **J. Bloch-Johnson.**, J. Gregory, T. Andrews, T. Mauritsen, C. Li, J.-L. Dufresne, G. Danabasoglu, A. Jonko, L. Cao, G. Schmidt, A. Abe-Ouchi, S. Yang, T. Frolicher, D. Paynter, and R. Knutti. Approaching equilibrium in climate models under elevated forcing (*submitted*)

PEER-REVIEWED PUBLICATIONS

Abbot, D., **J. Bloch-Johnson**, J. Checlair, N. Farahat, R. J. Graham, D. Plotkin, P. Popovic, and F. Spaulding-Astudillo (2018). Decrease in hysteresis of planetary climate for planets with long solar days *The Astrophysical Journal*.
Köhler, P., L. B. Stap, A. S. von der Heydt, B. de Boer, R. S. W. van de Wal, and **J. Bloch-Johnson** (2017). A state-dependent quantification of climate sensitivity based on paleodata of the last 2.1 million years. *Paleoceanography*, 32. ([link](#))
Bloch-Johnson, J., D. S. Abbot, and R. T. Pierrehumbert (2015). Feedback temperature dependence determines the risk of high warming. *Geophysical Research Letters*, 42, 12. ([link](#))

WORKSHOPS

Climatepalooza, 2017; Boulder, CO - Participant; helped develop a statistical model of rainfall in West Africa using rain gauge and satellite data in collaboration with David Legates and Nathan Lenssen.
Rosshypalooza, 2016; Chicago, IL - Head organizer of a week-long workshop bringing sixty climate scientists and statisticians for a lecture series and a hackathon. ([link](#))
LongRunMIP Workshop, 2016; Hamburg, Germany - Co-organizer of first meeting of participants in the LongRunMIP archive.

Urbino Summer School for Paleoclimate, 2015; Urbino, Italy - participant; learned about proxies used to reconstruct climate from across the Cenozoic.

Climate Data Hackathon at University of Chicago, 2014; Chicago, IL - Co-organizer of day-long hackathon at the Department of the Geophysical Sciences.

MCRN Climate Data Hackathon, 2014; Chapel Hill, NC - Head organizer of two-day hackathon at the Math Climate Research Network annual meeting.

CESM Tutorial, 2013; Boulder, CO - participant; learned how to run and alter NCAR's CESM climate model.

GRANTS, AWARDS, AND FELLOWSHIPS

NSF Grant 1623064, Abbot D., **Bloch-Johnson J.**, Cronin T., and Tziperman E.; Collaborative Research: Using a Hierarchy of Models to Constrain the Temperature Dependence of Climate Sensitivity (\$269k)

NSF USSP Fellowship, for attendance of the Urbino Summer School for Paleoclimate (Urbino, Italy; 2015).

NYCSeedStart 2010, for developing a web application that aids in comparing the cost and environmental benefits of various NYC electricity plans (\$12k; New York, NY; 2010).

Green:Net 09 LaunchPad, for developing a web application that automatically tracks greenhouse gas emissions based on credit card statements (San Francisco, CA; 2009).

SELECTED PRESENTATIONS

Oral presentation, Climate feedbacks from natural variability, *AMS Annual Meeting (forthcoming)* (Austin, TX; 2018).

Poster, Nonlinear equilibrium climate sensitivity in a perturbed physics ensemble, *AGU Fall Meeting* (New Orleans, LA; 2017).

Departmental Seminar, Time-varying climate feedbacks, *University of Wisconsin, Madison* (Madison, WI; 2017).

Seminar, Feedback temperature-dependence and the risk of extreme global warming, *ETH Zurich* (Zurich, Switzerland; 2016).

Poster, Feedback temperature dependence can cause extreme warming under anthropogenic emissions., *AGU Fall Meeting* (San Francisco, CA; 2015).

Invited seminar, Feedback Temperature Dependence: Ramifications for the Long Tail of Climate Sensitivity and the PETM, *Max Planck Institute for Meteorology* (Hamburg, Germany; 2015).

Invited online seminar, Global warming could be nonlinear, *MCRN Colloquium webinar* (Math Climate Research Network; 2015).

Oral presentation, The Temperature Dependence of Feedbacks and Equilibrium Climate Sensitivity, *AMS Sectional Meeting* (Washington, DC; 2015).

Oral presentation, The Temperature Dependence of Feedbacks and Equilibrium Climate Sensitivity, *AGU Fall Meeting* (San Francisco, CA; 2014).

TEACHING, SERVICE, AND OTHER SKILLS

Teaching

2017 TA, Global Energy & Climate Challenge

2015,2016 TA, The Atmosphere

2014 TA, Natural Hazards

2012-2013 TA and software developer, Global Warming: Understanding the Forecast

Co-organizer, LongRunMIP (2016-present): working with Maria Rugenstein (ETH) to compile an archive of millennial-scale coupled climate runs; participation from eight modelling centers ([link](#))

Reviewer, for *Climate of the Past*, *Geoscientific Model Development*

Outreach, Pint of Science (2016)

Programming languages: fluent in Julia, Python, Javascript (jQuery, d3.js), Ruby (creator of the Crewait gem, with 30,000+ downloads) and Rails web-framework; comfortable in Fortran, R, Matlab

PREVIOUS WORK EXPERIENCE

Almanac Environmental Services, Inc., *co-founder, CEO* developed web applications that aided environmentally conscious purchasing decisions (New York, NY; 2008-2011).

Freelance Web Development, built online tutoring website (including a payment system and integration with video conferencing), quizzes and games (New York, NY; 2012).