

JASON E. SMERDON

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EDUCATION

2004	Ph.D.	<i>Applied Physics</i>	University of Michigan, Ann Arbor, MI
2000	M.S.	<i>Physics</i>	University of Michigan, Ann Arbor, MI
1998	B.A.	<i>Physics Major</i>	Gustavus Adolphus Coll., St. Peter, MN

PROFESSIONAL APPOINTMENTS

2023-	<i>Professor of Climate</i>	Columbia Climate School, Columbia University, New York, NY
2022-	<i>Co-Senior Director for Education</i>	Columbia Climate School, Columbia University, New York, NY
2011-	<i>Co-Director, Undergraduate Program in Sustainable Development</i>	Earth Institute, Columbia University, New York, NY
2014-23	<i>Earth Institute Faculty</i>	Earth Institute, Columbia University, New York, NY
2017-23	<i>Lamont Research Professor</i>	Lamont-Doherty Earth Observatory, Columbia University, New York, NY
2014-17	<i>Lamont Associate Research Professor (Senior Staff)</i>	Lamont-Doherty Earth Observatory, Columbia University, New York, NY
2012-14	<i>Lamont Associate Research Professor (Junior Staff)</i>	Lamont-Doherty Earth Observatory, Columbia University, New York, NY
2012-14	<i>Earth Institute Faculty, Junior Member</i>	Earth Institute, Columbia University, New York, NY
2010-12	<i>Lamont Assistant Research Professor</i>	Lamont-Doherty Earth Observatory, Columbia University, New York, NY
2008-15	<i>Adjunct Assistant Professor</i>	School of International and Public Affairs, Columbia University, New York, NY
2008-10	<i>Doherty Associate Research Scientist</i>	Lamont-Doherty Earth Observatory, Columbia University, New York, NY
2008-12	<i>Storke-Doherty Lecturer</i>	LDEO and Dept. of Earth and Env. Sci., Columbia University, New York, NY
2007-08	<i>Barnard Environmental Science/Mellon Postdoctoral Fellow</i>	Department of Environmental Science, Barnard College, New York, NY
2005-07	<i>Lamont Postdoctoral Fellow</i>	Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY

HONORS AND AWARDS

- 2024 *Columbia University Faculty Mentoring Award*
Graduate School of Arts and Sciences, Columbia University, New York, NY
- 2018 *LDEO Excellence in Mentoring Award*
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2013 *Editors' Citation for Excellence in Refereeing*
Geophysical Research Letters
- 2009 *Distinguished Visiting Researcher at the UCM-Grupo Santander*
Universidad Complutense de Madrid, Madrid, Spain
- 2008 *James Chair Visiting Professor*
St. Francis Xavier University, Antigonish, Canada
- 2008 *First Decade Award for Early Professional Achievement*
Gustavus Adolphus College, St. Peter, MN
- 2007 *Storke-Doherty Lectureship Award*
LDEO and Dept. of Earth and Env. Sci., Columbia University, New York, NY
- 2007 *Barnard Environmental Science/Mellon Postdoctoral Fellowship*
Department of Environmental Science, Barnard College, New York, NY
- 2005 *Lamont-Doherty Postdoctoral Fellowship*
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2005 *John Dorr Graduate Academic Achievement Award*
Department of Geological Sciences, University of Michigan, Ann Arbor, MI
- 1998-2001 *GAANN Fellowship*
Applied Physics Program, University of Michigan, Ann Arbor, MI
- 1997 *Julian A. Crawford Memorial Prize in Physics*
Department of Physics, Gustavus Adolphus College, St. Peter, MN

PROFESSIONAL ACTIVITIES

Intergovernmental Panel on Climate Change

- 2011-13 Contributing Author, Working Group I, Assessment Report 5, *Chapter 5: Information from Paleoclimate Archives*.

Conference and Workshop Convening

- 2021-23 Co-Organizer (with Rhiannon Stephens), *History and Climate Change: Africa, Indigenous and Latin America, and South Asia*, Columbia University, NY
- 2010-19 Co-Convener (with K.J. Anchukaitis, E.R. Cook, J. Emile-Geay and K. Cobb), *The Climate of the Common Era*, AGU Fall Meeting
- 2017 Co-Covener (with E. Cook), *Large-scale hydroclimate variability and change of the Common Era: Patterns, Impacts, and Processes*, PAGES Open Science Meeting, Zaragoza, Spain
- 2016 Chair, PAGES 2k-PMIP3 Workshop: *Comparing data and model estimates of hydroclimate variability and change over the Common Era*, Lamont-Doherty Earth Observatory, NY
- 2013 Co-Chair, *Third International Workshop on Climate Informatics*, National Center for Atmospheric Research, Boulder, CO
- 2012 Program Committee Chair, *Second International Workshop on Climate Informatics*, National Center for Atmospheric Research, Boulder, CO
- 2012 Organizer, *Decadal-to-Centennial Tropical Pacific Climate Variability*:

Perspectives from Proxies and Multi-Century Model Simulations, Lamont-Doherty Earth Observatory, New York, NY

- 2008 Co-Convener (with C. Ammann, N. Graham, and M. Evans): *Advancing Process Understanding in Proxy Climate Records*, AGU Fall Mtg., San Francisco, CA

Workshop Participation

- 2024 *Human-Environment Interaction in Early China: Archaeological and Paleoenvironmental Research Trends and Future Trajectories* (Invited Speaker), Columbia University, New York, NY
- 2016 *Sixth International Workshop on Climate Informatics* (Keynote Speaker), National Center for Atmospheric Research, Boulder, CO
- 2014 *PAGES 2k Climate Field Reconstruction Workshop* (Speaker), Woods Hole Oceanographic Institution, Woods Hole, MA
- 2013 *PAGES2k/PMIP3 Workshop on Integrated Analysis of Reconstructions and Multi-Model Simulations for the Past Two Millennia* (Speaker), Madrid, Spain
- 2013 *CICAR Symposium, Climate Change: Recent Discoveries and Future Challenges* (Participant), Lamont-Doherty Earth Observatory, Palisades, NY
- 2013 *PAGES EuroMed2k Hydroclimate Workshop* (Speaker), Univ. of Reading, UK
- 2012 *PAGES EuroMed2k Workshop* (Speaker), Max Plank Institute for Meteorology, Hamburg, Germany
- 2012 *Workshop on using paleo-climate model/data comparisons to constrain future projections* (Participant), The Bishop Museum, Honolulu, Hawaii
- 2011 *First International Workshop on Climate Informatics* (Breakout Session Leader) New York Academy of Sciences, New York, NY
- 2011 *Bayesian Hierarchical Models for High-Resolution Climate Reconstructions* (Invited Speaker) National Center for Atmospheric Research, Boulder, CO
- 2011 *Bayesian Hierarchical Models (BHMs) for Climate Field Reconstruction (CFR) and Comparison to Existing CFR Methods* (Participant), Lamont-Doherty Earth Observatory, Palisades, NY
- 2010 *Climate Sensitivity Extremes: Assessing the Risk* (Participant), Goddard Institute for Space Studies, New York, NY
- 2010 *Climate of the Last Millennium: Natural and Forced Climate Variability from the Medieval Period to the Greenhouse Future* (Invited talk), Goddard Institute for Space Studies, New York, NY
- 2009 *Abrupt Climate Change in a Warming World* (Invited talk), Lamont-Doherty Earth Observatory, Palisades, NY

Editorial Positions and Reviewer Service

- 2004- Reviewer: *Science*, *Science Advances*, *Nature*, *Nature Geosciences*, *Nature Climate Change*, *Nature Communications*, *Journal of Climate*, *Geophysical Research Letters*, *Climate Dynamics*, *Journal of Geophysical Research (Atmospheres and Earth Surface)*, *Earth and Planetary Science Letters*, *Climate of the Past*, *International Journal of Climatology*, *Climatic Change*, *Environmental Modeling and Software*, *Hydrology and Earth System Science*, *Earth and Space Science*, Columbia University Press, National Science Foundation, Department of Energy, National Oceanographic and Atmospheric Administration
- 2006-08 Guest Editor (with V. Rath): *Climate of the Past*, Interpreting subsurface Temperature signals of climate change – Special Issue, http://www.clim-past.net/special_issue8.html

Invited Lectures and Panels (Last 5 Years)

- 2024 Keynote Lecture, 2024 Columbia Youth Climate Summit, NY
- 2024 Guest Lecture, Himan Brown Senior Program, 92 Street Y, NY
- 2023 Workshop Lecture, Integrating Climate Education in N.Y.C. Public Schools, New York, NY
- 2023 Keynote Lecture, 2023 Columbia Youth Climate Summit, Virtual
- 2022 Lecture, Woods Hole Oceanographic Institution, Falmouth, MA
- 2022 Keynote Speaker, Columbia Alumni Association, Washington D.C., Virtual
- 2022 Lecture, Climate Change: A Primer, Trumbull Library, Dinner Disrupted Series, Virtual
- 2022 Lecture, Salty Shorts, Great Salt Lake Institute, Westminster College, Virtual
- 2022 Keynote Speaker, Desert Tortoise Council, 47th Symposium, Virtual
- 2021 Lecture, 2021 PAGES 2K Network Seminar Series, Virtual
- 2021 Keynote Lecture, 2021 Columbia Youth Climate Summit, Virtual
- 2021 Keynote Lecture, 2021 Bergan Academies Climate Summit, Virtual
- 2020 Colloquium Speaker, University of Connecticut, Storrs, CT
- 2020 Colloquium Speaker, American Museum of Natural History, New York, NY
- 2020 Keynote Lecture, 2020 Columbia Youth Climate Summit, New York, NY
- 2020 Guest Speaker, Initiative for Sustainable Futures, Teachers College, New York, NY

UNIVERSITY SERVICE

Committees, Coordinating and Administration

- 2024- Co-Director: *MS in Climate Program*
Columbia Climate School, Columbia University, New York, NY
- 2024- Member: *Administrative Leadership Team*
Columbia Climate School, Columbia University, New York, NY
- 2022- Co-Senior Director for Education
Columbia Climate School, Columbia University, New York, NY
- 2016- Member: *Senior Sustainability Advisory Committee*
Columbia University Sustainability Planning Team, New York, NY
- 2011-24 Co-Director: *Undergraduate Program in Sustainable Development*
Earth Institute/Columbia Climate School, Columbia University, New York, NY
- 2023-24 Member: *Administrative Advisory Group*
Columbia Climate School, Columbia University, New York, NY
- 2023-24 Member: *Interim Steering Committee*
Columbia Climate School, Columbia University, New York, NY
- 2022 Member: *Lecturer in Discipline Search Committee (Climate Justice)*
Columbia Climate School, Columbia University, New York, NY
- 2022 Member: *Postdoctoral Research Scholar Search Committee (Climate Justice)*
Columbia Climate School, Columbia University, New York, NY
- 2021-23 Member: *Executive Group for Education*
Climate School, Columbia University, New York, NY
- 2021-22 Member: *Salary Equity Committee for Staff Officers of Research*
Vice Provost Office for Faculty Affairs, Columbia University, New York, NY
- 2021-22 Chair: *Undergraduate Programs Design Committee*
Climate School, Columbia University, New York, NY
- 2021-22 Co-Chair: *Masters Programs Design Committee*
Columbia Climate School, Columbia University, New York, NY
- 2019-23 Representative: *Executive Committee (Ocean and Climate Physics Division)*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY

- 2018-22 Member: *Executive and Leadership Committee*
Earth Institute/Columbia Climate School, Columbia University, New York, NY
- 2018-21 Chair: *Earth Institute Education Committee*
Earth Institute, Columbia University, New York, NY
- 2020-21 Member: *Programming Working Group for Diversity, Equity and Inclusion*
Earth Institute, Columbia University, New York, NY
- 2020-21 Co-Chair: *Education Working Group*
Columbia Climate School, Columbia University, New York, NY
- 2016-19 Member: *Promotions and Careers Committee*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2018-19 Member: *Faculty Search Committee* (Environmental Sustainability – Successful)
Department of Environmental Science, Barnard College, New York, NY
- 2018-19 Chair: *Education Task Force*
Earth Institute, Columbia University, New York, NY
- 2018 Member: *LARP Search Committee* (Atmospheric Science – Successful)
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2016-18 Member: *GHG/Energy Focus Team Member*
Columbia University Sustainability Planning Team, New York, NY
- 2016-17 Chair: *LARP Search Committee* (Atmospheric Science – Successful)
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2016-17 Chair: *Lecturer in Discipline Search Committee* (Successful)
Earth Institute, Columbia University, New York, NY
- 2014-15 Chair: *LARP Search Committee* (Climate/Paleoclimate – Successful)
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2011-14, 2016-17 Member: *Education Committee*
Earth Institute, Columbia University, New York, NY
- 2011-12 Member: *Faculty Search Committee* (Physical Oceanography – Successful)
Dept. of Earth and Env. Sciences, Columbia University, New York, NY
- 2010-15 Executive Advisor: *NSERC CREATE Training Program in Climate Science*
St. Francis Xavier University, Antigonish, Nova Scotia, Canada
- 2010-12 Chair: *Website Advisory Committee*
Dept. of Earth and Env. Sciences, Columbia University, New York, NY
- 2009-12 Member: *Advisory Committee to the Office of Academic Affairs and Diversity*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2008-11 Chair: *Campus Life Committee*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2010 Member: *Search Committee for Junior Science Writer*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2008-10 Member: *Website Advisory Committee*
Dept. of Earth and Env. Sciences, Columbia University, New York, NY
- 2008 Member: *Search Committee for Junior Science Writer*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2007-08 Coordinator: *The Earth Science Colloquium at the LDEO*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2006-08 Member: *Campus Life Committee*
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- 2007 Co-Coordinator (with H.-P. Huang): *Summer reading seminar on the IPCC AR4*
Lamont-Doherty Earth Observatory, Columbia University

MEDIA EXPERIENCE AND OUTREACH (LAST 5 YEARS)

I am regularly interviewed for print and broadcast media. The most up-to-date list of my media appearances and examples of my outreach efforts can be found at the following URLs:

<https://smerdon.ldeo.columbia.edu/recent-news>

<https://smerdon.ldeo.columbia.edu/content/teaching-and-outreach>

- 2022 Podcast Guest, What Next with Mary Harris, Slate, Virtual
- 2022 Video Interview, Yale Climate Connections, Virtual
- 2021 Podcast Guest, Learning for Life, Gustavus Adolphus College, Virtual
- 2021 Video Interview, Global Conscience World, Virtual
- 2021 Radio Guest, GBH Radio, Boston, MA, Virtual
- 2021 Guest Lecturer, Retirees in Service to the Environment, Virtual
- 2021 PIRE CREATE Webinar Speaker, Volcanoes and Climate, Virtual
- 2021 Radio Guest, ARD German Radio, Virtual
- 2020 Live Radio Guest, The Takeaway, New York Public Radio, New York, NY
- 2020 Project Rousseau, STEM Horizons Talk, New York, NY
- 2020 Live Radio Guest, The Source, Texas Public Radio, San Antonio, TX
- 2020 Co-Host, Pod of the Planet, Earth Institute, Columbia University, NY
- 2020 Live Radio Guest, CT Today with Ann Karrick, WICC 600, Bridgeport, CT
- 2019 Live Radio Guest, The Lisa Wexler Show with Ann Karrick, WICC 600, Bridgeport, CT
- 2019 Podcast Guest (2 episodes), The Environmental Breakdown, New York, NY
- 2019 Radio Guest, KTOO Public Media, Juneau, AK
- 2019 Teachers College Webinar Series on Sustainability and Education – Keynote Speaker
Teachers College, New York, NY

TEACHING AND MENTORING

Teaching and Course Development

- 2024- Co-Instructor (with Gull Island Institute): *Sustainability and the Meaning of Place on Cuttyhunk Island* (SDEV4500 Spring), Climate School, Columbia Univ., NY, NY
- 2024- Co-Instructor (with Chia-Ying Lee): *Quantitative Methods for Climate Applications* (CLMT5002 Spring), Climate School, Columbia University, New York, NY
- 2023- Co-Instructor (with Rhiannon Stephens): *Climate and History in Africa* (HIST3712 Spring)
Climate School, Columbia University, New York, NY
- 2011- Instructor: *Introduction to Sustainable Development* (SDEV1900 Fall and Spring)
Earth Institute/Climate School, Columbia University, New York, NY
- 2021 Guest Climate Lecture: *Environmental and Sustainability Education*, Teachers College,
Columbia University, New York, NY
- 2021 Guest Climate Lecture: *Climate Change Policy*, School of International and Public Affairs,
Columbia University, New York, NY
- 2020 Guest Climate Lecture: *Environmental and Sustainability Education*, Teachers College,
Columbia University, New York, NY
- 2017-20 Guest Climate Lecture: *The Business of Climate Change: Investing and Managing in a
Changing Environment*, Columbia Business School, New York, NY
- 2008-15 Instructor: *Climatology* (U6115 Summer; MPA in Environmental Science and Policy)
School of International and Public Affairs, Columbia University, New York, NY

- 2010 Instructor (with J. McManus): *Earth's Environmental Systems: Climate* (EES2100 Fall)
Dept. of Earth and Env. Science, Columbia University, New York, NY
- 2008 Guest Instructor: *Earth's Environmental Systems: Climate* (multiple lectures on
climate change adaptation/mitigation), Barnard College, New York, NY
- 2007-08 Lab Developer and Instructor: *Earth's Environmental Systems: Climate* (worked to
revise existing climate labs and include more hands-on exercises in the lab course,
including two climate model labs), Barnard College, New York, NY
- 2007 Guest Instructor: *Data Analysis* (taught multiple 2-hour undergraduate lectures on
introductory statistics), Barnard College, New York, NY

Undergraduate Students

- 2024 Tehreem Qureshi (CC '25), Lamont Summer Intern and Senior Thesis
Lamont-Doherty Earth Observatory, Palisades, NY
- 2018-19 Jacob Naimark (CC '20), EI Research Intern
Columbia College, New York, NY
- 2017 George-Costin Dobrin (CC '20), Columbia College Science Fellow
Columbia College, New York, NY
- 2017 Sofia Gouin, (CC '19), EI Research Intern
Earth Institute, New York, NY
- 2015 Grant Gutierrez (CC '15), EI Research Intern
Earth Institute, New York, NY
- 2014-15 Timothy Kirby Jr. (GS '16), EI Research Intern
Earth Institute, New York, NY
- 2014 Ryan Creedon (PSU '16), Lamont Summer Intern
Lamont-Doherty Earth Observatory, Palisades, NY
- 2014 Meredith Fish (PSU '15), Lamont Summer Intern
Lamont-Doherty Earth Observatory, Palisades, NY
- 2014 Stephanie Goldstein (BC '15), Lamont Summer Intern
Lamont-Doherty Earth Observatory, Palisades, NY
- 2013-14 Seung Hun Baek (CC '14), EI Research Intern and Senior Thesis
Department of Earth and Environmental Science, New York, NY
- 2008 E.B. Tupper (BC '08), Summer Research Assistant
Department of Environmental Science, Barnard College, New York, NY
- 2007 Alison Powell (BC '09), Summer Research Assistant
Department of Environmental Science, Barnard College, New York, NY
- 2007-08 Diana Chang (BC '08), Hughes Fellow, Summer Intern and Senior Thesis
Department of Environmental Science, Barnard College, New York, NY
- 2006, 08 Amanda Rook (BC '08), Summer Research Assistant
Department of Environmental Science, Barnard College, New York, NY
- 2006 A.J. Carver (UW-Madison, '07), NOAA Hollings Fellow, Summer Intern
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY

Research Assistants

- 2011 Hannah Aizenman (CUNY Graduate Student), Summer Code Developer
Google Summer of Code Internship, Hosted at LDEO, Palisades, NY
- 2009-10 Dan Amrhein (CC '09), Full-Time Research Assistant (*now a research scientist at NCAR*)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY

Graduate Students

- 2024- Shane Russett (Ph.D. student, Expected Graduation: 2029, Primary Advisor)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY

- 2024 Olya Skulovich (Thesis Committee)
Earth and Environmental Engineering, Columbia University, New York, NY
- 2023- Hannah Byrne (Ph.D. student, Expected Graduation: 2028, Primary Co-Advisor)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2023- Miriam Neilsen (Ph.D., Advisory Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2023 Erika Kessler (Thesis Committee)
Teachers College, Columbia University, New York, NY
- 2022-24 Rebecca Orrison (Thesis Committee)
Department of Atmospheric and Environmental Sciences, SUNY Albany, NY
- 2022- Aandishah Samara (Ph.D. student, Expected Graduation: 2027, Primary Co-Advisor)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2022- Ibuki Sugiura (Ph.D. student, Expected Graduation: 2027, Primary Co-Advisor)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2022 Adam Massmann (Ph.D. 2022, Thesis Committee)
School of Engineering and Applied Science, Columbia University, New York, NY
- 2021 Norman Steinert (Ph.D. 2021, Thesis Committee)
Universidad Complutense de Madrid, Madrid, Spain
- 2018- Arianna Varuolo-Clarke (Ph.D., Expected Graduation: 2023, Primary Co-Advisor)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2016-17 Yuxin Zhou (Ph.D., Advisory Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2015-20 Seung Hun Baek (Ph.D., 2020, Primary Advisor, *now a postdoc fellow at Yale University*)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2015-16 Xiaomeng Jin (Ph.D., Advisory Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2014-19 Colin Raymond (Ph.D., 2019, Thesis Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2014-19 Bor-Ting Jong (Ph.D., 2019, Thesis Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2013-17 Lea Schneider (Ph.D. 2017, 2nd Reader of Doctoral Thesis)
Johannes Gutenberg University, Mainz, Germany
- 2012-14 Nandini Ramesh (Ph.D., 2017, Advisory Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY
- 2010-15 Sloan Coats (Ph.D., 2015, Primary Advisor; *now an Assistant Professor, Univ. Hawaii*)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY 2008
- 2008 Miriam Jones (Ph.D. 2008, Outside Reader, Thesis Committee)
Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY

Postdoctoral Scientists

- 2023- Anson Cheung, Lamont Postdoctoral Fellow
- 2023- Yelin Jiang, Postdoctoral Research Scientist
- 2018 Gijs de Cort, BAEF Postdoctoral Fellow (*now a Research Sci. at U. of Ghent*)
- 2015-18 Justin Mankin, EI Postdoctoral Fellow (*now an Assoc. Prof. at Dartmouth*)
- 2015-18 Nathan Steiger, NOAA C&GC Postdoctoral Fellow (*now an Assist. Prof. at Hebrew U.*)

Research Scientists

- 2019-20 Nathan Steiger, Lamont-Doherty Earth Observatory of Columbia University

PENDING, FUNDED, AND COMPLETED GRANTS

Total Federal Funding Raised (since 2007): \$16,067,481

Total Federal Funding Raised as Lead PI, senior PI, or lead LDEO PI (since 2007): \$3,776,801

- Pending NASA, \$642,228 (LDEO Portion), *Quantifying Land-Surface Controls on Heat Extremes Using Observations and Models*, PIs: Y. Jiang (lead), M. Ting, J. Smerdon, and M. Puma
- Pending NOAA, \$743,902, *The impact of land surface conditions on the evolution and predictability of ocean-driven hydroclimate extremes in the western U.S.*, PIs: Y. Jiang (lead), J. Smerdon, R. Seager, and J. Mankin
- 2023- NSF, \$493,421 (LDEO Portion), *Collaborative Research: Diagnosing global climatic responses to large volcanic eruptions in climate reconstructions and model simulations*, PIs: J. Smerdon (lead), M. Vuille (SUNY-Albany) and L. Polvani
- 2021- NSF, \$871,446, *Decadal Regime Shifts in the Pacific Ocean: Mechanisms, Hydroclimatic Imprints, and Predictability*, PIs: J. Smerdon (lead) and R. Seager
- 2021- DOE, \$478,471 (LDEO Portion), *The Role of Vegetation in Past and Future Global Hydroclimatic Change*, PIs: J. Smerdon (lead), J. Mankin (lead, Dartmouth), R. Seager, A.P. Williams, K. Marvel, and B. Cook
- 2021-22 Columbia ISERP, \$8,882, *History and Climate Change: Africa, Indigenous & Latin America, South Asia Workshop Series*, PIs: R. Stephens (lead) and J. Smerdon
- 2020-24 NOAA, \$161,107 (LDEO Portion), *Regional influences of vegetation on complex droughts in North America*, PIs: J. Mankin (lead, Dartmouth), J. Smerdon (LDEO lead), R. Seager
- 2019-22 NSF, \$415,354, *GP-IMPACT: The Community College Compass - Mapping a Guided Pathway into Geosciences*, PIs: C. Xu (lead) and J.E. Smerdon
- 2019-23 NSF, \$371,596, *Diagnosing the dynamics of past and future North American megadroughts*, PIs: N. Steiger (lead) and J. Smerdon
- 2017-24 NSF, \$1,899,667 (LDEO Portion), *PIRE: Climate Research Education in the Americas using Tree-Ring Speleothem Examples (PIRE-CREATE)*, PIs: R. D'Arrigo (LDEO lead), Laia Andreu-Hayles, A.P. Williams, J. Smerdon, with lead PI: M. Vuille, SUNY-Albany
- 2016-20 NSF, \$157,085 (LDEO Portion), 3 years (1-yr NCE), *Collaborative Research: Derivation of Ensemble and Joint-Variable Climate Field Reconstructions of the Common Era Using New Random Field Methods*, PIs: B. Li (Lead, UIUC) and J. Smerdon (LDEO lead)
- 2016-20 NSF, \$626,108, *Reconstruction and Dynamics of Interhemispheric Hydroclimate Variability between the Americas*, PIs: J. Smerdon (lead), E. Cook, R. Seager, A.P. Williams
- 2015 PAGES, \$12,000, PMIP3/PAGES 2k Workshop: *Comparing data and model estimates of hydroclimate variability and change over the Common Era*, PI: J. Smerdon
- 2015 Lamont Climate Center, \$10,000, PMIP3/PAGES 2k Workshop: *Comparing data and model estimates of hydroclimate variability and change over the Common Era*, PI: J. Smerdon
- 2014-18 NSF, \$776,807, *Continental scale droughts in North America: Their frequency, character and causes over the past millennium and near-term future*, PIs: R. Seager (lead), N. Henderson, D. Lee, and J. Smerdon

- 2014 Lamont Climate Center, \$5,730, Climate Center Visitor: J. Fidel Gonzalez-Rouco, PI: J. Smerdon
- 2013-19 NSF, \$3,500,000 (LDEO Portion), *Collaborative Research, EaSM2: Linking near-term future changes in weather and hydroclimate in western North America to adaptation for ecosystem and water management*, PIs: R. Seager (lead), M. Ting, Y. Kushnir, M. Biasutti, J. Smerdon, B. Cook and A. Greene
- 2011-14 NOAA, \$30,463 (LDEO Portion), *Fossil Coral Estimates of Central Tropical Pacific SST and Hydrological Variability During the Last Millennium*, PIs: K. Cobb and J. Smerdon (LDEO lead)
- 2010-14 NOAA, \$2,383,473, *Global Decadal Hydroclimate Variability, Predictability and Change: A Data-Enriched Modeling Study*, PIs: R. Seager (lead), M. Cane, M. Ting, Y. Kushnir, J. Smerdon, A. Kaplan, M. Evans, L. Polvani
- 2009-13 NSF, \$274,418 (LDEO Portion), *Collaborative Research: Locally constrained climate field reconstructions of the last millennium: Methods and application*, PIs: J. Smerdon (lead), A. Kaplan, M. Evans
- 2008-11 NOAA, \$3,315,379, *Abrupt Climate Change in a Warming World: Lessons from Holocene Paleo and Modern Instrumental Records and Model Simulations*, PIs: R. Seager (lead), M. Cane, Y. Kushnir, A. Kaplan, M. Ting, N. Naik, X. Yuan, D. Martinson, and J. Smerdon
- 2007-11 NOAA, \$312,686, *Spectral characteristics of climate proxies and their expression in climate field reconstructions*, PIs: J. Smerdon (lead), A. Kaplan, E. Cook, and M. Evans
- 2007 Barnard Mini Mellon Grant, \$4,800, 1 year, *Campus Energy Assessment and Education for Sustainable Development*, PIs: J. Smerdon and S. Pfirman
- 2007 Black Rock Forest Consortium/Stiefel Foundation, \$3,350, 1 year, *Land-Atmosphere Coupling at Black Rock Forest: The role of snow, vegetation, and soil thermodynamics*, PIs: G. Gong, J. Smerdon and J. Cherry
- 2006 Black Rock Forest Consortium/Stiefel Foundation, \$4,989, 1 year, *Long-term data management for Black Rock Forest meteorological and snow-related research*, PIs: G. Gong, J. Smerdon and J. Cherry
- 2006 Climate Center, Lamont-Doherty Earth Observatory, \$5,200, 1 year, *Monitoring Snow Characteristics and the Evolution of Ground Temperatures at Black Rock Forest: Adding Capacity to the Snow Research Station*, Co-PIs: J. Cherry and J. Smerdon

PEER-REVIEWED PUBLICATIONS

Publications can be accessed online at: <https://smerdon.ldeo.columbia.edu/publications>
*Advised (principally or through collaborative projects) *student or **postdoctoral authors*
 ISI Data (10/5/24): 131 Publications, 9,754 Citations, h-index = 46
 Google Scholar (10/5/24): 14,696 Citations, h-index = 57

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