

### **J. David Neelin**

Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles

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Born: October 31, 1959, Ottawa, Canada. Citizenship: Canada and United States (dual)

#### **Professional Preparation**

University of Toronto, Department of Physics, BSc, Hon.: June, 1981; MSc 1983

Princeton University, Geophysical Fluid Dynamics Program, Doctorate: October, 1987,

Dept. of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, Postdoctoral Associate: Sept. 1987–Aug. 1988

#### **Appointments**

Distinguished Professor, Dept. of Atmospheric and Oceanic Sciences, UC Los Angeles July 2016–present

Professor, Dept. of Atmospheric and Oceanic Sciences, UC Los Angeles July 1995–June 2016

Chair, Dept. of Atmospheric and Oceanic Sciences, UCLA 7/2010-7/2013

National Center for Atmospheric Research, Scientific Visitor (Guggenheim Fellowship), 1-4/2008

Professor Invité, Ecole Normale Supérieure, Paris 5-6/2008

Vice-Chair, Dept. of Atmospheric and Oceanic Sciences, UCLA 1/2004-1/2008, 1/2009-6/2010

Associate Professor, Dept. of Atmospheric Sciences, UC Los Angeles July 1992–July 1995

Visiting Associate Professor, Dept. of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, January 1994–May 1995 (Houghton Lectureship)

Assistant Prof., Dept. of Atmospheric Sciences, University of California, Los Angeles, 9/1988–6/1992

#### **Selected Awards**

Jule G. Charney Medal, American Meteorological Society, 2019

Bert Bolin Global Environmental Change Award/Lecture, American Geophysical Union, 2017

Fellow of the Royal Society of Canada, elected 2015

Fellow, American Association for the Advancement of Science, 2012

Fellow, American Geophysical Union, 2012

Fellow of the John Simon Guggenheim Memorial Foundation, 2007-2008

Professeur Invité, Ecole Normale Supérieure, Paris May-June 2008

Fellow, American Meteorological Society, 2003

Fellow, Royal Meteorological Society, 2003

NSF Special Creativity Award 1999-2000

C. L. Meisinger Award of the American Meteorological Society, 1996

Houghton Lectureship, Dept. of Earth, Atmospheric and Planetary Sciences, MIT, 1994–95

Presidential Young Investigator Award 1991-1996

#### **Research Interests**

Tropical climate dynamics including El Niño/Southern oscillation; climate variations on interannual and longer time scales.

Regional precipitation sensitivity including changes under global warming and underlying mechanisms.

Pushing process-oriented diagnostics toward greater usefulness for constraining climate models, including organizing community efforts into common software framework, advocating common standards

Tropical atmospheric dynamics, including interaction between moist convection and large-scale motions; evaporation-wind feedback; intraseasonal oscillations; stochastic representations of moist convection

Theory for interactions among climate system subcomponents: ocean-atmosphere interaction; sea-ice–ocean interaction; land-surface and vegetation interaction with the physical climate system.

### Service and synergistic activities (selected)

Deputy Editor, *Science Advances*, American Association for the Advancement of Science, (2022-present)  
 Chair, National Oceanic and Atmospheric Administration Model Diagnostics Task Force (2018-present)  
 Lead organizer, Amer. Meteorol. Soc. Special Collection: Process-Oriented Diagnostics in CMIP6, 2023  
 National Ctr. for Atmos. Research, Climate & Global Dynamics Laboratory Advisory Board (2015-2021)  
 Jet Propulsion Laboratory Center for Climate Sciences Advisory Board (2012-2020)  
 New Fellows Selection Committee, Earth, Oc. & Atmos. Sci. Div., Royal Society of Canada (2017-2019)  
 NOAA Model Analysis and Prediction Program Task Force (2011-2015, 2015-2018)  
 Publication of a textbook (*Climate change and climate modeling*, Cambridge Univ. Press, 282 pp., 2011).  
 and online course material for upper division science majors from all fields  
 Intergovernmental Panel on Climate Change: Contributing Author, 2<sup>nd</sup> & 5<sup>th</sup> Assessment 1995, 2013  
 Intergovernmental Panel on Climate Change: Scientific Reviewer, 3<sup>rd</sup> & 4<sup>th</sup> Assessment 2001, 2007  
 UCLA Center for Canadian Studies, Executive Committee, 2011-present  
 International Climate Variability and Predictability Study (CLIVAR) Pacific Panel, 2005-2009  
 Associate Editor, *Journal of Climate*, 1996-2006  
 International Climate Variability and Predictability Study (CLIVAR) Pacific Panel, 2005-2009

### Thesis advisor for 16 (graduated) doctoral students (recent with current affiliation)

Chris Holloway (PhD 2009)	Professor, University of Reading, UK
Diana Bernstein (PhD 2014)	Assistant Professor, Marine Science, U. Southern Mississippi
Baird Langenbrunner (PhD 2015)	Research Analyst, Global Energy Monitor
Xuan Ji (PhD 2016)	Senior Analyst, PPNR modeling group, Unionbank
Kevin Quinn (PhD 2016)	Northrop Grumman
Kathleen Schiro (PhD 2017)	Assistant Professor, U Virginia
Yi-Hung Kuo (PhD 2021)	Postdoctoral researcher, Princeton U; Project Scientist, UCLA
Todd Emmenegger (PhD 2024)	Postdoctoral researcher, National Center for Atmospheric Research

### Advisor for 18 postdoctoral scholars (3 co-advised)

Wei-Ming Tsai	Postdoctoral Fellow, UCLA
Suqin Duan	Project Scientist, UCLA
Ni Dai (co-advised)	Postdoctoral Fellow, UCLA
Mengxi Wu (co-advised)	Asst. Research Scientist, Hong Kong Univ. of Science & Technology
Yi-Hung Kuo	Postdoctoral Fellow, Princeton University; Project Scientist, UCLA
Daniel Swain (co-advised)	Institute of the Environment & Sustainability, UCLA
Fiaz Ahmed	Assistant Research Scientist, UCLA
Cristian Martinez-Villalobos	Assistant Professor, Universidad Adolfo Ibáñez, (Chile)
Baird Langenbrunner	Research Analyst, Global Energy Monitor
Ole Peters	Resident Fellow, London Mathematical Laboratory, UK
Sandeep Sahany	Assistant Professor, Indian Institute of Technology, Delhi
Samuel Stechmann	Professor, University of Wisconsin-Madison
Benjamin Lintner	Professor, Rutgers, The State University of New Jersey
Roel Neggers	Professor, University of Cologne, Germany
Hui Su	Professor, Hong Kong Univ. of Science & Technology
Baijun Tian	Research Scientist, Jet Propulsion Laboratory
Duane Waliser	Chief Scientist, Earth Science and Technology Directorate, Jet Propulsion Lab
Jiayan Yang	Senior Scientist, Woods Hole Oceanographic Institution

### Publication Summary Information

Total peer-reviewed publications: >240 journal articles, 5 book chapters

One textbook & associated materials (for upper division undergraduate science students)

H-index: 84 (Google scholar); i10-index 219; Papers with over 100 citations (Google Scholar): 76