

Education:

1988-1994

University of Washington, Seattle, Washington

Ph.D. in Atmospheric Sciences, August 1994. Dissertation title: *Arctic Process and Climate Studies with the TOVS Satellite Sounder*.

1985-1988

San Jose State University, San Jose, CA. B.S. in Meteorology, May 1988.

1975-1978

University of New Hampshire, Durham, New Hampshire. Zoology major.

Employment:

2018-present

Woodwell Climate Research Center, Senior Scientist

2018-present

Rutgers University

Visiting Faculty, Department of Marine and Coastal Sciences

1994-2018

Research Professor, Department of Marine and Coastal Sciences

2006-2018

Member of Graduate Program in Atmospheric Sciences

Research:

Francis' career has focused on the Arctic climate system: how and why it is changing, and how the rapid warming and melting are affecting both the Arctic region and the global climate system. Her numerous projects have incorporated data from remote sensing systems, conventional measurements, and model simulations, synthesizing a broad range of scientific topics. Her research on connections between rapid Arctic warming and extreme weather in mid-latitudes led to a passion for effective science communication and numerous interactions with policy-makers, main-stream journalists (e.g., New York Times, Washington Post, PBS New Hour, CNN, and NPR), educators, and business entities. Francis is frequently invited to present her work at conferences, universities, non-profit organizations, and public groups.

Graduate Student Advisees

Ph.D. Students: Yonghua Chen (5/05), Natasa Skific (4/09), Michael Foster (10/08), Weihan Chan (12/14).

M.S. Students: Linong Yan (10/03), Natasa Skific (11/05), Marc Chiacchio (1/01), David Groves (1/01, U. of WA).

B.S. Honors Advisor: Weihan Chan (5/05)

Awards and Honors

Selected to testify at congressional hearing for the House Committee on Science, Space, and Technology in Washington DC, 2/13/2019.

Research featured in *Rutgers Magazine*, "Earth in Balance," Fall 2018 issue.

Top-50 most cited Rutgers experts in news media, 2018-19.

Rutgers School of Environmental and Biological Sciences Excellence Award for Research, 2016.

One of three researchers selected by Rutgers President Robert Barchi to join him in addressing alumni at events in New York, Philadelphia, and Washington D.C., 2015.

Selected to testify at hearing of the U.S. Senate Committee on the Environment and Public Works, 7/18/2013.

Service

2/2020-2023 AAAS Council Delegate, Section on Atmospheric and Hydrospheric Sciences
1/2020-present Norwegian Scientific Academy for Polar Research, member
10/2014-present SEARCH Sea-Ice Action Team, co-leader
9/2011-2017 National Academy of Sciences Polar Research Board member
8/2011-2016 Study of Environmental Arctic Change (SEARCH) Obs. Change Panel member
2013-2014 NRC Study Committee, *The Arctic in the Anthropocene: Emerging Arctic Research Questions* (2014)
2011-2012 NRC Study Committee, *Seasonal-to-Decadal Predictions of Arctic Sea Ice: Challenges and Strategies* (2012)
1/2007- 4/2009 Rutgers Climate and Environmental Change Initiative, Co-Director
2006 NSF/Arctic System Science Program science committee and Executive Comm.
4/1999-2002 NSF/Office of Polar Programs, Committee of Visitors (program review panel)
10/1998 NSF/OFAP Review Panel, Vice Chair in 2000, Chair in 2001
1/2004-1/2005 NSF/ HIAPER Review Panel
11/2003-2007 Program Chair of 2005 AMS Annual Meeting (4000+ attendees)
1/2007-1/2008 American Meteorological Society (AMS) Councilor and Exec. Committee
1/1997-1/2003 AMS Meetings Oversight Committee, Chair
4/1995-2003 AMS Committee on Polar Meteorology and Oceanog., Chair (2000-2003)
10/2003-4/2009 NASA Polar Pathfinder Working Group
1/2002 DOE Review Panel for Unmanned Aerial Vehicle Program.
4/1996-2001 Guest Investigator on NASA CERES Team
1990-1994 NASA TOVS Pathfinder Evaluation and Implementation Committees
3-4/1992 LeadEx Experiment, participant in airborne measurement component
Member of AGU, AMS, AAAS, AWIS

Advisory Boards

12/2018-present Scientific American, Advisory Board member
1/2013-present Metcalf Institute, U. of Rhode Island, Advisory Board member
1/2012-present U. Mass. Lowell Env. Studies, Advisory Board member
10/2003-4/2009 NSF/ HIAPER (NCAR's Gulfstream V research aircraft) Advisory Council
9/2000-2005 Study of Environmental Arctic Change (SEARCH) Science Steering Comm.
4/1996-2005 NASA Polar (NSIDC) DAAC Advisory Group
5/1996-2/2004 NASA Langley DAAC Advisory Panel