

1. Education		
Southampton College, Long Island	Marine Science/Biology	B.S. (Magna cum Laude) 1985
University of Bergen, Norway	Oceanography & Mathematics	Candidatus magisterii (~B.S.) 1988
University of Bergen, Norway	Polar Oceanography	Candidatus scientiarum (~M.S.) 1990
Dartmouth College, NH	Engineering (Thayer School)	Ph.D. 1996
NASA/Goddard, Post-Doc	Oceans and Ice Branch	1997-1998

2. Work Experience	Cumulative 34 years
---------------------------	----------------------------

June 2016 – Present, Research Professor, Geography, University of Delaware (UD), Newark, DE, USA; activities include externally funded research, curriculum development, and national/international opportunities which serve national interests. From Jan-May 2017 on temporary assignment as Visiting Lecturer, Geography, University of Vermont (UVM) to develop a new prototype intermediate-level undergraduate course entitled *Local-to-Polar Connections* which begins with a survey of cryospheric features across seventeen orders of magnitude from the water molecule to the snowflake to the ice sheet. The course exposes undergraduate students to the world of process studies with communication skill-building exercises that emphasize Fact Sheets, Toy-Model Design, Animation using Word and Excel, Scientific Digital Storytelling, YouTube dissemination, and intellectual property ethics.

Feb 2007 – May 2016, Associate Research Professor, Geography, University of Delaware (UD), Newark, DE, USA; duties focus on funding and advising students for international collaborative research and sustaining an externally funded research program on 9-month appointment renewed annually based on funding, academic performance, and standard UD collective bargaining agreements. Secondary appointment with College of Electrical and Computer Engineering from 2014 to 2016 to advise graduate students. More than thirty publications, two sea ice field campaigns, and the support/advisement of 17 graduate students in thesis work, including financial support.

Jan 2003 – Jan 2006, Research Geophysicist, Term Appointment Full-Time, ERDC/USACRREL, Hanover, NH, USA; duties at the Snow and Ice Branch included fundamental and applied studies related to geophysical system dynamics with specialization in Arctic and Antarctic sea ice and applications to Complex Geophysical Systems. Eight completed publications.

Sept 2000 – Dec 2002, Associate Scientist, Geography, University of Delaware (UD), Newark, DE, USA; Principle Investigator (PI) on research projects involving sea ice in the Arctic and Antarctic. Accomplishments included six completed publications, three awarded research grants, serving on thesis committees, and teaching. Full-time 12-month appointment renewed annually based on funding, academic performance, and standard UD collective bargaining agreements.

Nov 1998 – Aug 2000, Limited-Term Researcher, Geography, University of Delaware (UD), Newark, DE, USA; Enhanced post-doctoral position with all grant responsibilities except PI status on full-time research project addressing temporal aliasing of satellite-derived motion products coincident with in situ measurements. Accomplishments included peer-reviewed papers from one lead-author awarded research grants. Full-time 12-month appointment renewed annually based on funding, academic performance, and standard UD collective bargaining agreements.

Mar 1997 – Oct 1998, UTSA Postdoctoral Fellow, NASA/Goddard, Greenbelt, MD, USA. 12-month full time position under Sirpa Häkkinen and Anthony Liu of the Ice and Ocean Branch; duties include large data set handling, signal processing, and global sea ice assessment using numerical ice-ocean models and remote sensing information of the Arctic. Results include three peer-reviewed publications.

Mar 1996 – Feb 1997, Process Engineer/Production Assistant, Medical Media Systems, West Lebanon, NH, USA; Duties included manufacturing operations and upgrading of production facility of a medical 3-D surgical imaging product through FDA 510K approval and market introduction. Dual role as technical staff and process engineer. Part-time 25 hours/week.

Sept 1990 – June 1996, Research Assistant (20 hours/week), Thayer School of Engineering, Dartmouth College, Hanover, NH, USA; Supervisor William D. Hibler III with responsibilities to understand and develop numerical investigations of sea ice mechanics and thermodynamics. Improvements to numerical models described in three peer-reviewed publications and a Ph.D. thesis.

1985 – 1990, Scientific Assistant (20 hours/week), Nansen Remote Sensing Center, Bergen, Norway; Supervisors Ola M. Johannessen and Stein Sandven; experience included 7 polar oceanographic cruises, data processing, and writing of technical reports. Results include 9 published technical reports and a Master's Thesis.

May 1988 - Jan 1989 Computer programmer (part time on consulting basis) at Havforskning Institute, Bergen, Norway; commissioned as sole developer of a software package to display and process acoustic Doppler profiler data (ADCP) on an IBM-PC with HP plotter using Turbo Pascal 4.0

Jan 1983 – Aug 1985, Technical Assistant (10 hours/week during undergraduate semesters, full-time summers), Brookhaven National Laboratory (BNL), New York, USA; Duties included collecting regional biomass and conducting analyses of marine zooplankton samples from polar oceanographic cruises including: PROBES'80, PROBES'81, ISHTAR'83, and MIZEX'83/84 with direct participation in two oceanographic cruises (ISHTAR'83, MIZEX'84). Acknowledged for data collection and analysis in supervisor's peer-reviewed publications. Supervisor: Dr. Sharon L. Smith.

3. Distinctions and Memberships

Ongoing – Reviewer for JPO, J. Climate, IEEE TGARS, JGR, J. Glac. Cryosphere, MDPI, NSF, NASA

2016 – 2018, Hartford Energy Commission, Hartford, VT, USA

2015 – Present, Mount Washington Science Advisory Team

2014 – Present, Sea Ice Science Editor, Journal of Glaciology

2013, Co-convenor for DACA-13 session A4.1, Davos, Switzerland

2013, NASA Group Achievement Award for the ACE Project Team

2010 – Present, PolarTREC Selection Committee and CARE Network

2007 – 2009 PolarTREC research sponsor during the International Polar Year (IPY)

2006 – 2012 Advisory panel member for Cryosphere section of Editor's Choice of AGU

2006, Co-Guest editor with Mary Albert for Elsevier Journal of Cryospheric Research and Science

Technology (CRST), Volume 52, from Engineering Symposium held at CRREL Oct, 2006

2003 – 2014, Committee Member for the International Program of Antarctic Buoys (IPAB) of WMO

1999 – Present, Reviewer for NASA and NSF Proposals

1997 – Present, International Glaciological Society (IGS): Assoc. Ed. Vol. 33

1995 – Present, American Geophysical Union (AGU) member and journal reviewer