

CURRICULUM VITAE: IGOR V. POLYAKOV

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EDUCATION

1997:	Doctor of Science (Habilitation)	Physical Oceanography Russian State Hydrometeorological Institute
1992:	M.S.	Mathematics St. Petersburg State University, Russia
1990:	Ph.D.	Physical Oceanography Arctic and Antarctic Research Institute, St. Petersburg, Russia
1984:	M.S.	Physical Oceanography Leningrad Hydrometeorological Institute, Russia

PROFESSIONAL EXPERIENCE

August 19, 2012 - present (tenured July 1, 2014)	Professor	International Arctic Research Center and Atmospheric Sciences Dept/College of Natural Sciences and Mathematics, UAF
2005-2012	Affiliate Faculty	Atmospheric Sciences Dept/College of Natural Sciences and Mathematics, UAF
2003-2012	Research Professor	International Arctic Research Center, University of Alaska Fairbanks
1998-2003	Research Associate Professor	International Arctic Research Center, UAF, Fairbanks
1999-2000	Visiting Research Scientist	GFDL, Princeton University
1995-98	Research Associate	Institute of Marine Science, UAF
1995	Visiting Research Scientist	Hamburg Hydrographic Institute, Germany
1995	Visiting Research Scientist	Norwegian Polar Institute
1993-95	Senior Scientist	Arctic and Antarctic Research Institute, St.-Petersburg, Russia
1984-93	Research Scientist	Arctic and Antarctic Research Institute, St.-Petersburg, Russia

Primary Current Research Areas

- Role of ocean in shaping Arctic sea ice changes
- Mechanisms of heat delivery from the ocean interior to the upper ocean and sea ice
- Modes of upper ocean and sea ice variability in the Arctic
- Role of fresh water in changing Arctic climate

- Polar amplification of global warming
- Multi-decadal climate variability in the Arctic and North Atlantic

Educational responsibilities

Professor of Department of Atmospheric Science

Student Supervision in Research Training

- Currently 1 Ph.D. student, details below

Teaching

- Graduate Courses Taught: Climate Journal Club, Atmospheric Dynamics I, Air-Sea Interactions, Analysis Methods in Meteorology and Climate.
- Graduate committee member for numerous M.S. and Ph.D. students in Atmospheric Sciences, Oceanography, and Geophysics.

Supervisory responsibilities

- Dr. Harper Simmons, Postdoctoral Fellow (2001 - 2002)
- Dr. Andrey Pnyushkov, Postdoctoral Fellow (2009 - 2015)
- Dr. Igor Dmitrenko, Research Scientist (2003 – 2009)
- Mr. Robert Chadwell, Technician (2003 – 2007)
- Dr. Robert Rember, Technician (2009 – 2011)
- Mr. Larry Hastings, Intern (2008)
- Mrs. Rachel Patteson, Summer student (2017)

Service activities

- Lead Guest Editor, Special Issue, “Arctic climate change indicators”, *Environmental Research Letters*, 2017-2019.
- Press conference presentation during Arctic Science Summit Week, Fairbanks, March 2016: *Changes in the Arctic*.
- IARC Science Leadership Group (2013-present).
- Organizer of an Untersteiner Workshop “On the role and consequences of ocean heat flux in sea ice melt”, Fairbanks, Alaska, 2013.
- Invited Managing (Chief) Guest Editor, ISAR-3 Special Issue, *Polar Science* journal (2013-14).
- A member of Advisory Board for the Center of Complex Systems, UAF (2007–09).
- Organizer of all-IARC meeting, IARC/UAF, Alaska, 2016.
- A member of Advisory Board for the Beaufort Sea Mesoscale Meteorology Study under the Minerals Management Service (2008-13).
- Serving as an observational NABOS program leader to a broader science community (since 2002).

TEACHING & STUDENT MENTORING

Graduate level course “Atmospheric dynamics” (ATM 645)	UAF	Fall 2018
Graduate level course “Air-sea interactions” (individual)	UAF	Spring 2018
Supervising a PhD student Till Baumann	IARC/UAF	2015-present
A member of a PhD Committee of Amy Hendriks	GI/UAF	2017-present
A member of a PhD Committee of Liran Peng	GI/UAF	2017-present
A member of a MS Committee of Akila Sampath	GI/UAF	2017-present
A member of a MS Committee of Hannah Brink	GI/UAF	2017-present
A mentor of a summer school intern Rachel Patteson	IARC/UAF	2017

Graduate level course “Atmospheric dynamics” (ATM 645)	UAF	Fall 2016
Graduate level course “Air-sea interactions” (ATM 693)	UAF	Spring 2016
Graduate level course “Methods of analysis of atmospheric and climate data” (ATM 610)	UAF	Spring 2014
Graduate level course “Air-sea interactions” (ATM 693)	UAF	Spring 2014
A member of a PhD Committee of Richard Lader	GI/UAF	2013-14
A member of a PhD Committee of Michael Pirhalla	GI/UAF	2013-14
Graduate level course “Methods of analysis of atmospheric and climate data” (ATM 610)	UAF	Spring 2013
A member of a PhD Committee of Soumik Basu	GI/UAF	2009-14
A member of a PhD Committee of Jeanie Talbots	GI/UAF	2009-11
A member of a MS Committee of Dyre Oliver Dammann	GI/UAF	2009-11
Supervising postdoc Dr. A. Pnyushkov	IARC/UAF	2009-15
Graduate level course “Air-sea interactions” (ATM 693)	UAF	Fall 2008
Supervising a MS student Rebecca Legatt	IARC/UAF	2008–10
Supervising a PhD student Jenya Polyakova	Stanford U	Summers 2005–08
Supervising an intern Larry Hastings	IARC/UAF	Summer 2008
Climate Journal Club “Natural cycles in the Earth system”	UAF	2005
A member of a PhD Committee of Mrs. K. Sterling	IARC/UAF	2004-06
A member of a M.S. Committee of Mrs. Sookmi Moon	IMS/UAF	2003-04
Lecturer at IARC Summer School on Climate Modeling	IARC/UAF	July 2003
A member of a PhD Committee of Mr. W. Williams	IMS/UAF	1999-2003
Supervising Research Associate Dr. H. Simmons	IARC/UAF	2001-02
Supervising a PhD student A. Naumov	AARI	1994-95

PROFESSIONAL SOCIETIES

1984-1995	A Member of Russian Geographic Society
1995-present	A Member of the American Geophysical Union

AWARDS AND HONORS

2019	Sabbatical
2014	Tenure
2014	College of Natural Science and Mathematics, University of Alaska Fairbanks 2013-2014 Outstanding Teaching Award
2003	University of Alaska Fairbanks Faculty Exceptional Performance Award
2002	University of Alaska Fairbanks Faculty Exceptional Performance Award
2001	University of Alaska Fairbanks Longevity Award
1995	Third International Conference on Climate Change and Variability, Hamburg, Germany. Grant from Organizing Committee
1993	WMO Conference on Space-Based Ocean Observations, Bergen, Norway. WMO Award
1993	26 International Liege Colloquium “The Coastal Ocean in a Global Change Perspective”, Liege, Belgium. Grant from Organizing Committee
1992	Second International Conference on Climate Change and

1983-84 Variability, Hamburg, Germany. Grant from Organizing Committee
Leningrad Hydrometeorological Institute, Fedorov Fellowship

SERVICE

- Invited Lead Guest Editor, *Arctic Climate Change Indicators* Special Issue, *Environmental Research Letters* (2017-2019).
- Opponent, PhD Thesis Defence, S. Lind, Bergen University, Norway, 2018.
- A member of the Academic Council for PhD Thesis Defense of the St.-Petersburg State University (since 2017)
- A reviewer for *Nature* (2005-2014), *Nature Geoscience* (2008-2014), *Nature Climate Change* (2012-2015), *Science* (2006-07), *Journal of Climate* (since 2001), *Tellus* (2008), *Journal of Physical Oceanography* (since 2002), *Journal of Geophysical Research* (1996–2008), *International Journal of Climatology* (2011-12), *Geophysical Research Letters* (2002–08), *Climate Dynamics* (since 2003), *BAMS* (2012), *Continental Shelf Research* (2005-07), *Computing in Science and Engineering* (2007), *Atmosphere and Ocean* (2001, 2011), *the Cryosphere* (2011), *Polar Research* (1999, 2002, 2007), *Global and Planetary Change* (2004), *Deep Sea Research* (2005, 2010), *Climatic Change* (2011–13), *Ocean Science* (2011-12), *Soviet Meteorology and Hydrology* (1993–95), *Oceanology* (1993–95), and several other scientific journals (1999-2002).
- A reviewer for the NSF, NOAA, NASA, EU, NERC, and other national funding agencies proposals (since 1999).
- A member and chair of numerous University-wide and unit promotion and search committees (since 1999).
- Organizer of all-IARC meeting, UAF, Alaska, 2016.
- Opponent, PhD Thesis Defence, A. Zvereva, St.Petersburg State University, Russia, 2017.
- Reviewer, Doctoral Thesis, V. Belokopitov, Hydrophysical Institute, Russia, 2017.
- Interview to “The Globe and Mail”, Toronto, Canada, August 2015.
- Opponent, PhD Thesis Defense, P. Pemberton, Stockholm University, 2014.
- Organizer of Workshop “Observations of upper-ocean and sea-ice interactions in the eastern Arctic Ocean”, Arlington, VA, 2014.
- Organizer of NABOS Workshops (every other year during 1999–2009 and in 2014).
- Lecturer at International FAMOS for graduate students and postdocs, Woods Hole, 2015.
- Invited Managing Guest Editor, ISAR-3 Special Issue, *Polar Science* journal (2013-14)
- A member of Advisory Board for the Beaufort Sea Mesoscale Meteorology Study under the Minerals Management Service (2008-13).
- Organizer of an Untersteiner Workshop “On the role and consequences of ocean heat flux in sea ice melt”, Fairbanks, Alaska, 2013.
- Public lecture “NABOS Program Overview” and local Fairbanks radio interview in November 2013.
- A member of IARC Leadership Group, since 2013.
- A member of Advisory Board for the Center of Complex Systems, UAF (2007–09)

- Co-author of the IPCC (Intergovernmental Panel on Climate Change) Third Assessment Report.
- Co-organizer IARC Summer Schools aboard the Russian icebreaker “*Kapitan Dranitsyn*” and RV “*Akademik Fedorov*,” September 2005, 2006 and 2013.
- Organizer of Workshop “Arctic Ocean Drift Study”, Winnipeg, Canada, 2012.
- Lecture at APECS Webinar for students, July 2012.
- Organizer of S4D-NABOS Workshop “Near-slope observations in the Arctic Ocean”, Paris, France, 2009.
- Presentation of IARC research for mass media (both U.S. and international TV, radio, newspapers, journals), Alaskan legislature, Arctic Council, school students, and native people of Russian North (2005 – interviews to several Norwegian journalists, interview to Japanese TV, 2006 – meeting with US-Russian rotary club people, interviews to BBC, Canadian Broadcasting Corporation, NPR, German science writer Dr. S. Titz, local Alaskan media, 2007 – Russian NTV, Climate Change Workshop for High School Kids, interview for German newspaper Berliner Zeitung, 2008 – Shell Oil Co representatives, Australian TV and newspaper, EU Parliamentarians).
- Work cited by Nikey, New York Times, Intl. Herald Tribune, Sydney Morning Herald, by Alaskan local media.
- Co-Convener of an AGU 2006 Session, OSM 2007 Session.

FUNDED PROJECTS

Title	PI/Co-PI	Sponsor	Period	Grant
Collaborative Research: Eurasian and Makarov basins observational network targets changes in the Arctic Ocean / Supplementary funding	PI	NSF	2019	\$389K
Collaborative Research: Three-dimensional structure of Arctic tides and near-inertial oscillations, and their role in changing the Arctic Ocean and pack ice	Co-PI	NSF	2017-19	\$398K
Changes of heat and freshwater budgets in the East Siberian Sea and southern Makarov Basin contributing to multidisciplinary changes in the Pacific Arctic	PI	NOAA	2017	\$75K
			2016	\$175K
			2015	\$858K
Near-Slope Changes in the Eurasian and Makarov Basins from Glider Surveys (P. Winsor)	Co-PI	ONR	2016	\$132K
Coordination and participation: Workshop “Observations of upper-ocean and sea-ice interactions in the eastern Arctic Ocean”	PI	NSF	2014	\$10K

Collaborative Research: Eurasian and Makarov basins observational network targets changes in the Arctic Ocean / Supplementary funding (ship costs)	PI	NSF	2014	\$2.0M
Collaborative Research: Eurasian and Makarov basins observational network targets changes in the Arctic Ocean / Supplementary funding (ship costs)	PI	NSF	2013	\$2.5M
Collaborative Research: Upper ocean heat flux in the Eurasian Basin: Oceanic thermodynamic forcing contributing to Arctic ice loss	PI	NSF	2012-14	\$812K
Collaborative Research: Eurasian and Makarov basins observational network targets changes in the Arctic Ocean	PI	NSF	2012-18	\$5.6M
International collaboration to improve predictive capabilities for Arctic sea ice	PI	VCSI/NASA	2012	\$89K
Collaborative research: Ocean mixing processes associated with high spatial heterogeneity in sea ice and the implications for climate models	Co-PI	NSF	2009-11	\$814K
Improving predictive capabilities for the Arctic ice: International cooperative network (Ivanov, Tivy)	PI	CIFAR	2011-13	\$183K
Ocean mixing processes associated with high spatial heterogeneity in sea ice and the implications for climate models (Jin, Hutchings)	Co-PI	NSF	2011-14	\$814K
Nansen and Amundsen Basins Observational System (NABOS)	PI	NSF	2009-10	\$200K
		Shell	2009	\$175K
		NSF	2008-09	\$200K
		NOAA	2008-09	\$1,715K
		NSF	2007-08	\$200K
		NOAA	2007-08	\$1,800K
		NSF	2006-07	\$286K
		NOAA	2006-07	\$1,800K
		NSF	2005-06	\$433K
		NOAA	2005-06	\$786K
		NSF/NOAA	2004-05	\$1,221K
		NSF	2003-04	\$1,256K
		NSF	2002-03	\$1,102K
		NSF	2001-02	\$750K
NSF	2000-01	\$250K		

Identification of missing mechanisms impacting the long-term predictive capabilities of Global Climate Models utilizing a dynamical systems approach to the analysis of observed and modeled climate (Bhatt, Newman, Wackerbauer)	Co-PI	DOE	2008-10	\$679K
Quantifying the role of ocean-ice-atmosphere interactions in shaping recent reduction of ice cover in the Eurasian Basin of the Arctic Ocean (Bhatt, Ivanov, Kwok)	PI	NASA	2008-12	\$749K
Upper ocean interactions: Observations and Modeling (Simmons, Hibler, Ivanov et al.)	Co-PI	ONR	2007-10	\$1,018K
Multidecadal variability in the Arctic/ North Atlantic climate system	PI	Frontier	2006-07	\$57K
Long-term variations in the Atlantic Water temperature (Alekseev, Colony, Timokhov)	PI	Frontier	2001-03	\$32K
Investigating two regimes of arctic system variability (Johnson, Proshutinsky)	Co-PI	NSF	1998-2001	\$501K
Modeling acoustic transmission and temperature across the Arctic (Johnson, Proshutinsky)	Co-PI	SAIC	1997-98	\$118K
High performance computer code for a Coupled ice-ocean model (Proshutinsky)	Co-PI	ARSC	1998	\$47K
Development of a coupled sea ice – ocean model of the Kara Sea (Dmitriev, Kolesov, Kulakov, Naumov, Pritchard)	PI	Amoco	1994	\$40K

SELECTED CONFERENCES AND MEETINGS

Date	Title of presentation	Where	Form of presentation
<i>Invited speaker</i>			
May 2019	Changing paradigm of a quiet Arctic Ocean due to emerging new dynamic regime	Lecture, KOPRI, Korea	Invited speaker
Sep 2018	Changing paradigm of a quiet Arctic Ocean due to emerging new dynamic	Lecture, Chapman Chair,	Invited speaker

	regime	UAF	
May 2018	Borealization of the Arctic Ocean	Seminar, U.Bergen, Norway	Invited speaker
February 2018	Borealization of the Arctic Ocean	Seminar, Geomar, Germany	Invited speaker
February 2018	Borealization of the Arctic Ocean	Seminar, FMI, Finland	Invited speaker
October 2017	Contrasting and integrating Atlantification /Pacification of the Arctic Ocean	4 th pan-Arctic Symposium, Motovun, Croatia	Invited speaker
May 2017	Rapid “Atlantification” of the eastern Arctic Ocean	AWI Seminar Bremerhaven, Germ.	Invited speaker
January 2017	Rapid “Atlantification” of the eastern Arctic Ocean	UTA Seminar Austin, TX	Invited speaker
May 2016	Rapid “Atlantification” of the eastern Arctic Ocean	NPI Seminar Tromso, Norway	Invited speaker
November 2015	The Laptev Sea and eastern Eurasian Basin: A switch-gear controlling Arctic heat and freshwater transports	FAMOS meeting Woods Hole, USA	Invited speaker
November 2015	The Eurasian and Makarov basins target changes in the Arctic Ocean	AGU, San Francisco USA	Invited speaker
December 2014	AON observations in the Eurasian and Makarov basins target changes in the Arctic Ocean	AGU, San Francisco USA	Invited speaker
November 2014	Oceanic fingerprint on decaying Arctic sea ice	MISU, Stockholm Sweden	Invited speaker
January 2013	Monitoring warming in the Eurasian Basin of the Arctic Ocean	ISAR-3, Tokyo Japan	Invited speaker
April 2011	Arctic Ocean warming contributes to reduced polar ice cap	EGU Annual Conference, Vienna	Invited speaker
March 2011	Recent and long-term changes in the Arctic climate system	CERC Sciences Seminar U.Manitoba, Canada	Invited speaker
March 2011	North Atlantic warming: Patterns of long-term trend and multidecadal variability	Earth & Environ. Sci. Seminar U.Rochester, NY	Invited speaker
March 2010	Multidecadal variability in the Arctic/ North Atlantic climate system	Dept. Atmospheric Sciences Seminar JHU, Baltimore	Invited speaker
March 2009	Changes in the Arctic atmosphere-ice-Ocean system	“Climate Change” Intl. Scientific Congress Copenhagen, Denmark	Invited speaker

February 2009	North Atlantic warming: Patterns of long-term trend and multidecadal variability	Norwegian Polar Ins. Seminar, Tromso Norway	Invited speaker
February 2009	Recent and long-term changes in the Arctic climate system	Norwegian Polar Ins. Seminar, Tromso Norway	Invited speaker
February 2009	Multidecadal variability in the Arctic /North Atlantic Climate System	Geology Dept., Univ. of Michigan Seminar Ann Arbor, USA	Invited speaker
November 2008	Recent changes in the Arctic Ocean: Effects of long-term change and variability	1 st Intl. Symposium on the Arctic Res. Tokyo, Japan	Invited speaker
October 2007	Synthesis of long-term changes in the Arctic/North Atlantic climate system	Stockholm Univ., Meteo Dept. Seminar	Invited speaker
October 2007	Synthesis of long-term changes in the Arctic/North Atlantic climate system	SMHI Seminar Sweden	Invited speaker
December 2006	Arctic Ocean freshwater content changes and their causes	AGU Fall Meeting San Francisco, USA	Invited speaker
December 2006	Synthesis of long-term changes in the Arctic/North Atlantic climate system	AGU Fall Meeting San Francisco, USA	Invited speaker
December 2006	The role of sea ice in shaping recent Arctic Ocean freshwater content changes	AGU Fall Meeting San Francisco, USA	Invited speaker
April 2006	Recent and long-term changes in the Arctic/North Atlantic oceans	EGU Annual Conference, Vienna	Invited speaker
March 2006	Recent and long-term changes in the Arctic and North Atlantic	AARI Seminar St.-Petersburg	Invited speaker
March 2006	MAOOS/NABOS: Preparation for the IPY	Arctic Week, AOSB Meeting, Potsdam	Invited speaker
March 2006	NABOS/PAG: Preparation for the IPY	Arctic Week, PAG Meeting, Potsdam	Invited speaker
November 2005	Recent high-latitude changes and long-term climate variations	3d Trans-Atlantic Conf., Wash D.C.	Invited speaker
March 2005	Arctic climate change	JAMSTEC Symp. Yokohama, Japan	Invited speaker
February 2005	Arctic Ocean observational network	US Natl. Academy Workshop, Anchorage	Invited speaker
December 2004	Recent high-latitude climate change	SCAR/WCRP Workshop, Fairbanks	Invited speaker
November 2004	Long-term Arctic climate variations	IMS seminar Fairbanks	Invited speaker

September 2004	Long-term climate variations in the Arctic	IGARSS-2004 Intl Conference Anchorage	Invited speaker
November 2002	Long-term variability and climate in the Arctic	AARI Seminar St.-Petersburg	Invited speaker
June 2002	Towards understanding arctic climate change and variability	M&M Workshop LDEO New York	Invited speaker
February 2001	Decadal and interdecadal Arctic variability	GFDL Seminar Princeton	Invited speaker
October 1999	Modeling two regimes of Arctic climate	Intl Arctic Res. Center, Fairbanks	Invited speaker
May 1999	Modeling two regimes of Arctic climate	Goddard Space Flight Center	Invited speaker

Other recent selected presentations

Fall 2018	Evidence for three distinct hydrographic seasonal cycles at the continental slope of the eastern Eurasian Basin of the Arctic Ocean	AGU Ocean Sci. Meeting	Poster (Baumann et al.) HE24B-2881
Fall 2018	Evidence supporting halocline water formation and modification in the East Siberian Sea.	AGU Ocean Science Meeting	Poster (Alkire et al.) HE24B-2883
March 2016	Merging observations in the eastern and western Arctic Ocean	PAG/ASSW Fairbanks, USA	Speaker
April 2015	Forcing, variability, and pathways of a Freshwater-driven current in the Eurasian Arctic	EGU General Assembly, Vienna	Poster (Janout et al.)
April 2015	Heat loss from the Atlantic Water layer in the St Anna Trough (northern Kara Sea): Causes and consequences	EGU General Assembly, Vienna	Oral presentation (I.Dmitrenko)
April 2014	NABOS Overview	NABOS meeting Arlington, USA	Speaker
August 2013	Evaluating daily temperature and precipitation for Alaska	Extreme Temperature Precipitation Events Workshop, Berkeley California	Lader et al. Poster
July 2013	Is Pan-Arctic Tundra vegetation change linked to sea ice variability?	Davos Atmosphere and Cryosphere Assembly, Davos Switzerland.	Bhatt et al. talk
April 2013	Heat loss from the Atlantic Water layer in the St Anna Trough (northern	EGU General Assembly, Vienna	Oral presentation (I.Dmitrenko)

	Kara Sea): Causes and consequences		
April 2013	North Atlantic warming: Patterns Of trend and variability	DAS Seminar UAF	Oral presentation
March 2013	JICS Research Area #1: Arctic Ocean Atmosphere / Ice	IARC/Jamstec Meeting, Fairbanks	Oral presentation
July 2012	Arctic Ocean: state of knowledge and uncertainty	AODS Workshop Winnipeg, Canada	Oral presentation
July 2012	Recent changes in the interior of the Arctic Ocean	Joint Arctic Virtual Session	Oral presentation
April 2012	Atlantic Water inflow into the Arctic Ocean through the St Anna Trough	EGU General Assembly, Vienna	Oral presentation (I.Dmitrenko)
January 2012	Arctic Ocean warming contributes to reduced Arctic sea-ice coverage	IARC Seminar UAF	Oral presentation
December 2011	Mooring-based observations of the double-diffusive staircases over the Laptev Sea slope, Arctic Ocean	AGU Fall Meeting, San Francisco	Oral presentation
December 2011	Mooring-based observations of tidal currents over the continental slope of the Laptev Sea, Arctic Ocean	AGU Fall Meeting, San Francisco	Poster (A.Pnyushkov)
October 2010	Role of polar amplification in long-term SAT variations and modern Arctic warming	ASD/UAF Seminar Fairbanks	Oral presentation
October 2010	Recent changes of multiyear sea-ice coverage and the likely causes	IARC-CliC Workshop, Fairbanks	Oral presentation
March 2010	Fate of early-2000s Arctic warm Water pulse	State of the Arctic Conference, Miami	Oral presentation
March 2010	Arctic Ocean freshwater changes over the past 100 years and their	State of the Arctic Conference, Miami	Poster
March 2010	Structure of boundary current in the Basin of the Arctic Ocean	State of the Arctic Conference, Miami	Poster
March 2010	Fine scale persistent Arctic Ocean structures	Dynamics of Complex Systems	Oral presentation
August 2009	Separating multidecadal and anthropogenic forcing in signals of from N. Atlantic climate	Dynamics of Complex Systems Fairbanks	Oral presentation
March 2009	Planning NABOS for 2009 and beyond	NABOS Workshop Paris, France	Oral presentation
March 2009	Eight years of NABOS	NABOS Workshop Paris, France	Oral presentation
August 2008	Warming of the Arctic Ocean: Sequences for polar ice cap	Dynamics of Complex Systems Fairbanks	Oral presentation

April 2008	North Atlantic warming: Fingerprints of climate change and long-term variability	EGU annual meeting, Vienna Austria	Oral presentation
April 2008	Recent changes in the Arctic Ocean: Effects of climate change and long-term variability	EGU annual meeting, Vienna Austria	Oral presentation
April 2008	Recent temperature trends in the Arctic	EGU annual meeting, Vienna Austria	Poster (co-author)
March 2008	Nansen and Amundsen Basins Observational System (NABOS)	Arctic Observation Integration Workshop, Palisades	Oral presentation
March 2008	Ocean impact on recent reduction of arctic ice	Arctic Observation Integration Workshop, Palisades	Oral presentation
December 2007	North Atlantic warming: Fingerprints of climate change and long-term variability	AGU Fall Meeting San Francisco	Oral presentation (lead author)
December 2007	Tracing the Atlantic temperature signal in the Arctic Ocean	AGU Fall Meeting San Francisco	Oral presentation (co-authors)
December 2007	Using a dynamical systems approach to characterize climate for physical interpretation and comparison of models to observations	AGU Fall Meeting San Francisco	Poster (co-authors)
July 2007	Synthesis of long-term changes in the Arctic/North Atlantic climate system	CCSS Meeting Fairbanks	Oral presentation
July 2007	Changing relationship between the NAO and key N. Atlantic climate parameters	CCSS Meeting Fairbanks	Poster (Co-authors)
April 2007	What happens with Atlantic Water Entering the Arctic Ocean through the Fram Strait	EGU annual meeting	Oral presentation (co-author)
April 2007	Arctic Ocean freshwater content changes and their causes	EGU annual meeting	Poster (lead author)
June 2006	Recent changes and long-term variations in the Arctic/North climate system	Workshop on Polar Climate Modeling, Fairbanks	Speaker
May 2006	Multidecadal variability in the Arctic/North Atlantic climate system	Arctic Forum Washington DC	Poster (lead author)
December 2005	Changing relationship between the NAO and key N. Atlantic climate parameters	AGU Fall Meeting San Francisco	Poster (Co-authors)

December 2004	Oceanic changes in the Arctic	CLiC-SCAR-ICPM Workshop, Fairbanks	Speaker
June 2004	Multi-decadal variability of the atmosphere-ice-ocean system in the Arctic	1st Intl CLIVAR Conf., Baltimore	Poster (Co-authors)
May 2004	From Nansen to NABOS: A century-long history of Arctic exploration	IARC seminar UAF, Fairbanks	Public lecture Speaker
March 2004	NABOS Annual Report Scientific results	NABOS Meeting St.-Petersburg	Speaker
February 2003	NABOS/CABOS: First results of IARC observational program	IARC Seminar Fairbanks	Speaker
December 2002	Role of the low-frequency variability in determining Arctic climate trends	AGU Fall Meeting San Francisco	Poster (Co-authors)
September 2002	Long-term Arctic variability	M&M Workshop Fairbanks	Speaker
July 2001	Long-term Arctic variability	Innsbruck, Austria	Speaker

PEER-REVIEWED PUBLICATIONS

- 2019: Lee, C. M., S. Starkweather, H. Eicken, M.-L. Timmermans, J. Wilkinson, S. Sandven, D. Dukhovskoy, S. Gerland, J. Grebmeier, J. M. Intrieri, S.-H. Kang, M. McCommon, A. T. Nguyen, I. Polyakov, B. Rabe, H. Sagen, S. Seeyave, D. Volkov, A. Beszczynska-Moller, L. Chafik, M. Dzieciuch, G. Goni, T. Hamre, A. L. King, A. Olsen, R. P. Raj, T. Rossby, O. Skagseth, H. Søliland, and K. Sørensen. A Framework for the Development, Design and Implementation of a Sustained Arctic Ocean Observing System. *Frontiers in Marine Science*, 6, 451.
- 2019: Alkire, M. B., R. Rember, and I. Polyakov, Discrepancy in the identification of the Atlantic/Pacific front in the central Arctic Ocean: NO versus nutrient relationships. *Geophys. Res. Lett.*, 46. <https://doi.org/10.1029/2018GL081837>.
- 2019: Polyakov, I. V., L. Padman, Y.-D. Lenn, A. V. Pnyushkov, R. Rember and V. V. Ivanov, Eastern Arctic Ocean diapycnal heat fluxes through large double-diffusive steps, *J. Phys. Oceanogr.*, 49, 227-246, DOI: 10.1175/JPO-D-18-0080.1.
- 2018: Polyakov, I. V., A. V. Pnyushkov, and E. C. Carmack, Stability of the arctic halocline: A new indicator of arctic climate change, *Environ. Res. Letts.*, 13, 125008, <https://doi.org/10.1088/1748-9326/aaec1e>.
- 2018: Morison, J., J. Wilkinson, M. Alkire, F. Nilsen, I. Polyakov, W. Smethie Jr., P. Schlosser, F. Vivier, A. Lourenco, C. Provost, J. Pelon, C. Peralta Ferriz, M. Karcher, B. Rabe, C. Lee, The North Pole Region as an Indicator of the changing Arctic Ocean: The need for sustaining observations. *ARCTIC*, 71(5), 1–5, 2018, doi:<https://doi.org/10.14430/arctic4601>.
- 2018: Pnyushkov, A., Polyakov, I. V., Padman, L., and Nguyen, A. T.: Structure and dynamics of mesoscale eddies over the Laptev Sea continental slope in the Arctic Ocean, *Ocean Sci.*, 14, 1329-1347, <https://doi.org/10.5194/os-14-1329-2018>, 2018.
- 2018: Pnyushkov, A. V., Polyakov, I. V., Rember, R., Ivanov, V. V., Alkire, M. B., Ashik, I. M., Baumann, T. M., Alekseev, G. V., and Sundfjord, A.: Heat, salt, and volume transports in the eastern Eurasian

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- 2018: Baumann, T. M., **I. V. Polyakov**, A. V. Pnyushkov, R. Rember, V. V. Ivanov, M. B. Alkire, I. Goszczko, and E. C. Carmack, On the seasonal cycles observed at the continental slope of the Eastern Eurasian Basin of the Arctic Ocean. *J. Phys. Oceanogr.*, 48, 1451-1470, DOI: 10.1175/JPO-D-17-0163.1.
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ACCEPTED PUBLICATIONS

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