


## Marchenko Aleksey V.

<ul style="list-style-type: none"><li>- <b>D.B.: 27.10.1960</b></li><li>- <b>Status:</b> Married, three children</li><li>- <b>Nationality:</b> Russian</li><li>- <b>Home address:</b> N-9170 Longyearbyen 232, 20, 10, Norway</li><li>- <b>Contact Address:</b> UNIS, P.O.Box 156 N-9171 Longyearbyen, Norway</li><li>- <b>Telephone:</b> 47- 79-02-3365 (work), 47- 91-55-2552 (mobile)</li><li>- <a href="http://www.unis.no">www.unis.no</a></li><li>- <b>Fax:</b> 47-79-02-3301</li><li>- <b>Email:</b> <a href="mailto:Aleksey.Marchenko@unis.no">Aleksey.Marchenko@unis.no</a></li></ul>	
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### **Current occupation:**

Professor, Physics  
University Centre in Svalbard, Norway

### **Education:**

<b>1977-1982</b>	BS/MS (Mechanics), Moscow State University, Faculty of Mechanics and Mathematics
<b>1982-1985</b>	Post-Graduate Course, Moscow State University, Department of Hydromechanics, Moscow State University, Faculty of Mechanics and Mathematics

### **Qualifications:**

<b>1982</b>	BS/MS National Diploma in Mechanics
<b>1987</b>	PhD (Mechanics of liquid, gas and plasmas), Moscow State University and Highest Attestation Board under the Council of Ministers of the USSR. Thesis: "Some problems of the theory of internal and surface waves in the fluid beneath an ice cover".
<b>1997</b>	Doctor of Sciences (Mechanics of liquid, gas and plasmas), Moscow State University and Highest Attestation Board under the Government of the Russia. Thesis: "Models of sea ice cover and flexural-gravity waves"
<b>2008</b>	Professor in Physics, personal affiliation by the NTNU committee, Norway

### **Research Work Experience:**

<b>1985-1988</b>	Junior Researcher, Laboratory of Fracture Mechanics, Institute for Problems in Mechanics, Academy of Sciences of the USSR, Moscow
<b>1988-1991</b>	Senior Researcher, Laboratory of Mathematical Modeling in Hydrodynamics, Institute of Applied Mathematics, Far Eastern Branch of Academy Science of the USSR, Vladivostok
<b>2002-2008</b>	Senior Researcher (1/2 staff), Laboratory “Arctic Shelf”, Arctic and Antarctic Research Institute, St.-Petersburg, Russia
<b>1991-2011</b>	Leading Researcher, Theoretical Department, General Physics Institute, Russian Academy of Sciences, Moscow
<b>2011-pr.</b>	Leading Researcher (1/2 staff), State Oceanographic Institute, Federal Service for Hydrometeorology and Environmental Monitoring, Russia

### **Field Work Experience:**

<b>1987</b>	Expedition for the study of permafrost on Yamal Peninsula, Production and Research Institute for Engineering Construction Survey, Ministry of Construction, Russia
<b>1989</b>	Expedition for the study of deep convection in Norwegian and Greenland Seas, Arctic and Antarctic Research Institute, St.-Petersburg, Russia
<b>2004-2006</b>	Expeditions for the studies of mechanical and physical properties of sea ice in the Barents Sea, Arctic and Antarctic Research Institute, St.-Petersburg, Russia
<b>2006</b>	Expedition for the study of coastline dynamics and ice actions in the Kara Sea, Russia
<b>2007</b>	Expedition in the Central Arctic to setup drifting station North Pole 35, AARI, Russia
<b>2007-pr</b>	Regular every year expeditions in Svalbard fjords to study properties of sea currents, waves and land fast ice, UNIS, Norway
<b>2007-pr</b>	Regular every year expeditions in the Barents Sea by RV Lance to study properties of drifting ice, UNIS, Norway
<b>2012</b>	Field works on the drifting ice in the Greenland Sea by research icebreaker Oden, Statoil

### **Teaching Experience:**

<b>1989-1990</b>	Lecturer on theoretical mechanics and physics, Far East University, Vladivostok, Russia
<b>1998-2001</b>	Supervisor of course and diploma student works, Department of Hydromechanics, Moscow State University
<b>2003</b>	Visiting Professor of the Seoul National University, Department of Naval Architecture and Ocean Engineering, teaching of Ice Technology
<b>2011-2012</b>	Visiting Professor of the St.-Petersburg State Marine Technical University, teaching of Ice Mechanics.
<b>2006 – pr.</b>	Professor at the University Centre in Svalbard, Norway, Responsible professors for BSc/MSc course AT-211 “Ice Mechanics, Loads on Structures and Instrumentation”, MSc/PhD “Physical Environmental Loads on Arctic

	Coastal and Offshore Structures”
<b>2012-2017</b>	Professor II at NTNU, Faculty of Engineering Science and Technology

### Honours:

<b>1997-2000</b> <b>2000-2003</b>	Stipends of the President of the Russian Federation for outstanding scientists
<b>2005-pr.</b>	Member of the National Committee on Theoretical and Applied Mechanics, Russia
<b>2005-pr.</b>	Member of the International Committee of the International Conference on Port and Ocean Engineering Under Arctic Conditions (POAC)
<b>2010-pr.</b>	Member of the Norwegian Scientific Academy for Polar Research

### Grants:

- Norwegian Polar Institute, senior researcher of the Norwegian Research Council Project "Physical mechanisms of formation and destruction of fast ice in the western Arctic basin", Project Code 128087/730, 1999-2001.
- Short-term Scholar, Solution analysis for modelling structures in sea ice and ice ridges; International Arctic Research Centre, Alaska, Fairbanks, 02.05.2001-06.01.2001
- Short-term Scholar, Analysis of the interaction of tidal waves with islands; School of Fisheries and Ocean Science/ Institute of Marine Science, Alaska, Fairbanks, 06.01.2001-07.15.2001
- Barlindhaug Consult AS R&D project “Development of a numerical model to predict pipeline burial depth in the areas subjected to ice ridge scour”, Tromso 2005, Norway.
- Project of the Russian Foundation for Basic Research «Formation and evolution of the roughness of sea ice surfaces», 2005-2006, Project Leader.
- Project of the Russian Foundation for Basic Research «Organization and carrying out of complex investigation of air-sea interaction on Arctic ice during International Polar Year», 2007, Project Leader.
- Project of the Russian Foundation for Basic Research «Physical and mechanical properties of Arctic Sea ice», 2008-2010, Project Leader.
- Maritime Safety Management in the High North, project of the Norwegian Research Council
- “Physical-mechanical properties of sea ice and influence of ice cover on hydrology of Svalbard fjords”, 2010-2012, project of the Norwegian Research Council, Project Leader.
- Project of the Russian Foundation for Basic Research « Influence of thermo-physical properties of sea ice and sea water on the state of Arctic ice cover and energy exchange in polar regions, 2011-2013, Project Leader.
- BP visiting professorship position in St.-Petersburg State Marine Technical University (2011-2012).
- SFI project Sustainable Development of Arctic Marine and Coastal Technology (SAMCoT), Centre for Research-based Innovations (2011-2019), Leader of WP 1 “Collection and Analysis of Field Data and Properties”, RCN.
- Safety of Maritime Operation and Sustainable Industrial Development in the Arctic (SMIDA), CPRU-2011/10042, Project Leader.
- Safety of Industrial Development and Transportation Routes in the Arctic (SITRA). HNP-2014/10008, 2014-2018, Project Leader.

- Visiting professor in Dalian University of Technology, China, 2013.
- Visiting professor in University College of London, UK, 2013.
- Field studies and modelling of sea state, drift ice, ice actions and methods of icebergs management on the Arctic shelf, NORRUS, RCN, 243930/H30, 2015-2017, Project Leader.
- Experiments on waves in oil and ice (2014-2019), PETROMAKS2 233901, WP Leader, RCN
- Investigation of bending rheology of floating ice and physical mechanisms of wave damping. Hydralab+, 2018. Project Leader.
- Arctic offshore and coastal engineering in changing climate, RCN and SIU, 274951, 2018-2020, Project Leader.

### **Supervising of PhD students:**

Finished and defended PhD thesis: 4 since 2011

Current: 3

Scientific Consultant for Doctor Science Thesis of Stanislav Ogorodov (Lomonosov Moscow State University, 2014)

**Supervising of MSc students:** 23 since 2007