



Prof. Dr. Hugues Lantuit  
03.12.1977  
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## PROF. DR. HUGUES LANTUIT

### EDUCATION

**UNIVERSITY OF POTSDAM, POTSDAM, GERMANY**

**ALFRED WEGENER INSTITUTE HELMHOLTZ CENTRE FOR POLAR AND MARINE RESEARCH**

2005-2008

PhD, Geosciences

*Magna Cum Laude*

**MCGILL UNIVERSITY, MONTRÉAL, CANADA**

2002-2004

M.Sc., Geography

**UNIVERSITÉ PARIS7 DENIS DIDEROT, PARIS, FRANCE**

1998-2002

Maîtrise, Physical Geography

*Très bien distinction*

*Exchange year at McGill University, Montréal (2001-2002)*

### RESEARCH INTERESTS

My research is primarily focused on the impacts of climate change on Arctic permafrost. It involves the holistic use of geospatial, geophysical and analytical tools, including geographical information systems, subsurface geophysics or soil sampling to quantify and characterize landscape changes occurring in permafrost regions. It focuses on the geochemical, microbiological, sedimentological and geotechnical characterization of the landscape, with the objective of estimating the release of organic matter from permafrost to the marine environment and the atmosphere. The goal of this research is also to assess potential hazards associated with increasing permafrost thaw in the Arctic, in particular near Arctic Inuit coastal communities, and to better understand the role of the process in the Arctic carbon and nutrient cycle.

### PROFESSIONAL EXPERIENCE

**JUNIOR PROFESSOR, UNIVERSITY OF POTSDAM, INSTITUTE FOR EARTH AND ENVIRONMENTAL SCIENCE**

Since 01.10.2013

**GROUP LEADER, HELMHOLTZ YOUNG INVESTIGATORS GROUP „COPER“, ALFRED WEGENER INSTITUTE HELMHOLTZ CENTRE FOR POLAR AND MARINE RESEARCH**

Since 01.02.2012

**EXECUTIVE DIRECTOR, INTERNATIONAL PERMAFROST ASSOCIATION**

2008-2012

### LANGUAGES

Fluent English, French and German

## AWARDS

### **BEST PHD STUDENT SUPERVISOR AT THE ALFRED WEGENER INSTITUTE HELMHOLTZ CENTRE FOR POLAR AND MARINE RESEARCH**

2013

### **CANADIAN SPACE AGENCY-EUROPEAN SPACE AGENCY AWARD FOR BEST OVERALL STUDENT POSTER AND BEST ORAL PRESENTATION**

2004

55<sup>th</sup> International Astronautical Conference, Vancouver, Canada, 4-9 October 2004 (Lantuit, H., Haltigin, T., Pollard, W. H.. Remote detection of ground ice in polar desert environments: A multi-sensor approach)

### **FINALIST AND 3RD PRIZE, AURORA STUDENT DESIGN CONTEST**

2003

European Space Agency, Barcelona, Spain, 2003. (RIGID: Resistivity Instrument for Ground Ice Detection).

2010-2012

### **GOVERNMENT OF CANADA AWARD**

2003

International Council for Canadian Studies

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## SCIENCE MANAGEMENT

### **CHAIR, CORE GROUP, PERMAFROST RESEARCH PRIORITIES**

2014-2015

IPA-CliC initiative for the definition of global permafrost research priorities

### **MEMBER, GERMAN NATIONAL COMMITTEE FOR POLAR RESEARCH**

2014-present

Nationalkomitee SCAR/IASC der DFG

### **MEMBER, CRYOSPHERE WORKING GROUP OF THE INTERNATIONAL ARCTIC SCIENCE COMMITTEE**

2014-present

### **MEMBER, STEERING GROUP, INTERNATIONAL CONFERENCE ON ARCTIC RESEARCH PLANNING III (ICARPIII)**

2013-present

International Arctic Science Committee initiative for science planning in the Arctic. Representative for the International Permafrost Association

### **MEMBER, EXECUTIVE COMMITTEE, INTERNATIONAL PERMAFROST ASSOCIATION**

2012-present

### **MEMBER, ADVISORY BOARD, GLOBAL TERRESTRIAL NETWORK FOR PERMAFROST (GTN-P)**

2012-present

### **MEMBER, TRANSNATIONAL BOARD, INTERACT**

2012-present

EU FP7 project on terrestrial infrastructure in the Arctic

### **EXECUTIVE DIRECTOR, INTERNATIONAL PERMAFROST ASSOCIATION**

2008-2012

### **MEMBER, INITIATING GROUP, SUSTAINING ARCTIC OBSERVING NETWORKS (SAON)**

2008-2009

**MEMBER, STEERING COMMITTEE SEDIBUD, IAG WORKING GROUP ON SEDIMENT BUDGETS IN COLD ENVIRONMENTS**

2007-2008

**EXECUTIVE COORDINATOR AND FOUNDER, PERMAFROST YOUNG RESEARCHERS NETWORK (PYRN)**

2005–2009

**COORDINATOR AND CO-FOUNDER, ASSOCIATION OF POLAR EARLY CAREER SCIENTISTS (APECS)**

2006-2008

**STEERING COMMITTEE MEMBER, EUROPEAN SCIENCE FOUNDATION SEDIFLUX (SEDIMENTARY SOURCE-TO-SINK-FLUXES IN COLD ENVIRONMENTS)**

2005-2007

**PRESIDENT AND FOUNDER, GEOGRAPHY GRADUATE SOCIETY (GGS), MCGILL UNIVERSITY**

2003-2004

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CONFERENCES

**MEMBER, STEERING COMMITTEE, ARCTIC CHANGE CONFERENCE**

Ottawa, Canada, December 2014

**MEMBER, LOCAL ORGANIZING COMMITTEE, ELEVENTH INTERNATIONAL CONFERENCE ON PERMAFROST**

Potsdam, Germany, June 2016

**MEMBER, SCIENTIFIC COMMITTEE, TENTH INTERNATIONAL CONFERENCE ON PERMAFROST**

Salekhard, Russia, June 2012 (~600 participants)

**VICE-CHAIR, SCIENTIFIC COMMITTEE INTERNATIONAL POLAR YEAR CONFERENCE 2012**

Montréal, Canada, April 2012 (~2800 participants)

**STEERING COMMITTEE MEMBER, INTERNATIONAL POLAR YEAR OPEN SCIENCE CONFERENCE 2010**

Oslo, Norway, June 2010 (~2200 participants)

**SCIENTIFIC ORGANIZING COMMITTEE MEMBER, ARCTIC SCIENCE SUMMIT WEEK.**

Bergen, Norway, March 2009. (~400 participants)

**SCIENTIFIC ORGANIZING COMMITTEE MEMBER, SCAR/IASC OPEN SCIENCE CONFERENCE**

St. Petersburg, Russia, July 2008. (~1200 participants)

**ORGANIZER AND SCIENTIFIC ORGANIZING COMMITTEE MEMBER, 2ND IMPETUS TRAINING WORKSHOP: "TECHNIQUES IN POLAR OCEAN OBSERVATION AND MONITORING"**

St.-Petersburg, Russia, 19-22 2008. (~80 participants)

**ORGANIZER AND SCIENTIFIC ORGANIZING COMMITTEE MEMBER, 1ST IMPETUS TRAINING WORKSHOP ON PERMAFROST RESEARCH METHODS**

St.-Petersburg, Russia, 29 November-2 December 2007. (~60 participants)

**ORGANIZER (WITH W. POLLARD AND N. COUTURE), 5TH ARCTIC COASTAL DYNAMICS INTERNATIONAL WORKSHOP**

Montréal, Canada, October 13-16 2004. (~60 participants)

**SESSION CHAIR, OPEN SESSION ON PERMAFROST, EUROPEAN GEOSCIENCES UNION ANNUAL MEETING**

Vienna, Austria, April 2014

**SESSION CHAIR, PERIGLACIAL RESEARCH, INTERNATIONAL ASSOCIATION OF GEOMORPHOLOGY CONGRESS**

Paris, France, August 2013

**SESSION CHAIR, OPEN SESSION ON PERMAFROST, EUROPEAN GEOSCIENCES UNION ANNUAL MEETING**

Vienna, Austria, April 2013

**SESSION CHAIR, "PERMAFROST AND CLIMATE" TENTH INTERNATIONAL CONFERENCE ON PERMAFROST**

Salekhard, Russia, June 2012.

**SESSION CHAIR, "PERMAFROST ON A WARMING PLANET" INTERNATIONAL POLAR YEAR CONFERENCE 2012**

Montréal, Canada, April 2012.

**SESSION CHAIR, "STATE OF GLACIERS AND PERMAFROST AND ASSOCIATED FEEDBACKS TO THE CLIMATE SYSTEM "ARCTIC SCIENCE SUMMIT WEEK SCIENCE SYMPOSIUM**

Seoul, Korea, March 2011.

**SESSION CHAIR, "OCEAN MAPPING, COASTAL & SHELF PROCESSES" ARCTICNET ANNUAL SCIENCE MEETING**

Ottawa, Canada, December 2010.

**SESSION CHAIR, "HYDROLOGICAL, COASTAL, NEARSHORE AND UPPER SHELF PROCESSES IN POLAR REGIONS" INTERNATIONAL POLAR YEAR OPEN SCIENCE CONFERENCE 2010**

Oslo, Norway, June 2010.

**SESSION CHAIR, "COASTAL ENVIRONMENTS AS A LINK BETWEEN LAND AND SEA IN THE ARCTIC" ARCTIC SCIENCE SUMMIT WEEK SCIENCE SYMPOSIUM**

Bergen, Norway, March 2009.

**SESSION CHAIR, "REMOTE SENSING OF CHANGES IN TERRESTRIAL PERMAFROST" AGU FALL MEETING**

San Francisco, USA, December 2008.

**SESSION CHAIR, "EVOLVING COASTAL, NEARSHORE AND SHELF PROCESSES IN THE POLAR REGIONS" SCAR/IASC OPEN SCIENCE CONFERENCE**

St. Petersburg, Russia, July 2008.

**SESSION CHAIR, POSTER SESSION "SEDIMENTARY SOURCE-TO-SINK-FLUXES IN COLD ENVIRONMENTS" AND " 3RD SEDIFLUX WORKSHOP**

Trondheim, Norway, October-November 2007

**MODERATOR, PANEL "ACHIEVEMENTS AND PERSPECTIVES IN THE FOURTH INTERNATIONAL POLAR YEAR", FORUM POLAIRE**

Paris, 20 March 2009

**PANELIST, "CLIMATIC PREDICTIONS AND PERENNIAL ICE ENVIRONMENTS – CHALLENGES FOR THE FUTURE »**

PEER-REVIEW

**JOURNALS & ASSESSMENTS**

Environmental Research Letters  
Geophysical Research Letters  
Nature  
Nature Geoscience  
Permafrost and Periglacial Processes  
Polar Research  
Remote Sensing of Environment  
Snow, Water, Ice and Permafrost in the Arctic (SWIPA)

**GRANTS**

Agence Nationale de la Recherche  
National Science Foundation  
Academia Europaea  
European Science Foundation

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PROFESSIONAL  
MEMBERSHIPS

**INTERNATIONAL PERMAFROST ASSOCIATION**

2010-present

**DEUTSCHE GESELLSCHAFT FÜR POLARFORSCHUNG**

2007-present

**ASSOCIATION OF POLAR EARLY CAREER SCIENTISTS**

2007-present

**PERMAFROST YOUNG RESEARCHERS NETWORK**

2005-present

**EUROPEAN GEOSCIENCES UNION**

2003-present

**AMERICAN GEOPHYSICAL UNION**

2008-2010

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FUNDING

*In decreasing financial order*

**CHANGING PERMAFROST IN THE ARCTIC AND ITS GLOBAL EFFECTS IN THE 21ST CENTURY  
(PAGE 21)**

European Union FP7

Hans-Wolfgang Hubberten, Julia Boike & Hugues Lantuit – 9,269,927 €, 2011-2015

**COPER (COASTAL PERMAFROST EROSION, ORGANIC CARBON AND NUTRIENT RELEASE IN  
THE ARCTIC NEARSHORE ZONE)**

Helmholtz Society Young Investigator Group

Hugues Lantuit – 1,500,000 €, 2012-2018

**CARBON RELEASE FROM DEGRADING PERMAFROST IN THE WESTERN CANADIAN ARCTIC**

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BMBF: Federal Ministry of Education and Research.  
Hugues Lantuit & Michael Fritz– 73,000 €, 2011-2013

**HIGH RESOLUTION QUATERNARY RECORDS FROM EASTERN BERINGIA (WESTERN CANADIAN ARCTIC)**

BMBF: Federal Ministry of Education and Research  
Hugues Lantuit & Michael Fritz– 32,348 €, 2009-2011

**THE ENVIRONMENTAL DYNAMICS OF THE WESTERN CANADIAN ARCTIC DURING THE NATURAL CLIMATE OSCILLATIONS OF THE LATE QUATERNARY**

German Science Foundation (DFG)  
Hugues Lantuit & Michael Fritz– 25,432 €, 2009

**NATIONAL CORRESPONDENTS WORKSHOP ON GLOBAL TERRESTRIAL NETWORK FOR PERMAFROST (GTN-P) IMPLEMENTATION AND DATA POLICY. COLLABORATIVE SUPPORT PROGRAM GRANT**

Office of Naval Research Global  
Hugues Lantuit– 15,000 \$, 2013

**PAST, PRESENT AND FUTURE CLIMATE CHANGE EFFECTS ON PERMAFROST LANDSCAPES FROM THE WESTERN CANADIAN ARCTIC**

BMBF: Federal Ministry of Education and Research  
Hugues Lantuit & Michael Fritz– 6,632 €, 2008

**LEDAM (LENA DELTA MORPHOLOGY)**

European Space Agency ALOS program.  
Hugues Lantuit, Guido Grosse & Lutz Schirrmeister –imagery, 2006-2008

**SENSE (SHORELINE EROSION OF NORTH-SIBERIAN ENVIRONMENTS)**

OASIS, Optimising Access to Spot Infrastructure for Science, 6th Framework Programme/Research Infrastructures/Transnational Access of the European Commission.  
Hugues Lantuit - imagery, 2006-2007

**ISACSA (IDENTIFICATION OF STABLE AND ACTIVE COASTAL SLUMPS IN THE ARCTIC)**

OASIS, Optimising Access to Spot Infrastructure for Science, 6th Framework Programme/Research Infrastructures/Transnational Access of the European Commission.  
Hugues Lantuit – imagery, 2006-2007

**ACCO/NET (ARCTIC COASTAL OBSERVATORY NETWORK)**

European Space Agency IPY Announcement of opportunity.  
Paul Overduin, Hugues Lantuit & Guido Grosse, imagery, 2007-2011

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TEACHING

**COURSE LECTURER, “COASTAL DYNAMICS”**

Master course (Lecture + seminar; 4 SWS)  
University of Potsdam, Institute for Earth and Environmental Science  
Course evaluation: 4.8/5.0 (“sehr gut”), institute average: 3.7/5.0 (“eher gut”)

**COURSE LECTURER, “GELÄNDEKURS PHYSISCHE GEOGRAPHIE”**

Bachelor course (Geländepaktikum, 2x 2 SWS)  
University of Potsdam, Institute for Earth and Environmental Science

**COURSE LECTURER, "SOCIOECONOMIC ASPECTS OF GEOGRAPHICAL INFORMATION SYSTEMS"**

Bachelor course (Übung, 3 credits)  
McGill University, GEOG 307, 2004 (Main lecturer: Prof. R. Sengupta)  
*This course was awarded the best grade in the geography department for the spring semester 2004.*

**GUEST LECTURER, "EARTH'S POLAR REGIONS: SCIENCE, SOCIETY, AND DISCOVERY "**

"Permafrost and Climate Change"  
Texas A&M University. GEOS401, 2012  
(Lecturer: M. C. Kennicutt)

**LECTURER, WORKSHOPS OF THE ASSOCIATION OF POLAR EARLY CAREER SCIENTISTS AND THE PERMAFROST YOUNG RESEARCHERS NETWORK**

More than 20 lectures and web seminars for early career scientists (2007-2012).

Selected titles:

"An introduction to polar organisations"  
"Polar acronyms: Everything you do not want to know on polar science"  
"Tips for networking at conferences"  
"How to hold a bad presentation"  
"Managing different cultures and languages"

**TEACHING ASSISTANT, MCGILL UNIVERSITY**

2002-2004  
GEOG 201 "Geographic Information Science"  
GEOG 205 "Global Climate Change"  
GEOG 308 "Principles of remote sensing"  
GEOG 307 "Socioeconomic aspects of GIS"  
Student support, mentoring, and grading of assignments and examinations

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**SUPERVISION**

**JUSTINE RAMAGE, PHD SUPERVISOR**

"Assessing current thermokarst dynamics and sediment mobilization along Arctic coasts using high resolution remote sensing"  
University of Potsdam, Institute for Earth and Environmental Science  
2014-present

**ANNA KONOPCZAK, PHD SUPERVISOR**

"past, present and future coastal erosion rates on the Yukon Coastal Plain, Canada"  
University of Potsdam, Institute for Earth and Environmental Science  
2014-present

**GEORGE TANSKI, PHD SUPERVISOR**

"Geochemical fluxes due to the coastal erosion of organic carbon-rich permafrost sediments"  
University of Potsdam, Institute for Earth and Environmental Science  
2014-present

**JAROSLAV OBU, PHD SUPERVISOR**

"Using LIDAR and multispectral datasets to map coastal erosion and soil organic carbon contents along the Yukon coastal Plain"

University of Potsdam, Institute for Earth and Environmental Science  
2012-present

**BORIS RADOSAVLJEVIC, PHD SUPERVISOR**

“Underwater shoreface erosion and longshore current patterns around Herschel Island, Yukon Territory”

University of Potsdam, Institute for Earth and Environmental Science  
2012-present

**STEFANIE WEEGE, PHD SUPERVISOR**

“Retrogressive thaw slump induced sediment and nutrient discharge along the Yukon Coastal Plain”

University of Potsdam, Institute for Earth and Environmental Science  
2012-present

**JULIANE WOLTER, PHD SUPERVISOR**

“Late Holocene climate variability on the Yukon Coastal Plain”

University of Potsdam, Institute for Earth and Environmental Science  
2012-present

**GEORGE TANSKI, MASTER THESIS SUPERVISOR**

“Dissolved organic carbon in ground ice of the Yukon Coastal Plain”,  
Free University Berlin  
2012-2013

**BÉATRICE BARBIER, ADVISOR**

“Microbiological investigations on the Yukon Coast”

PhD thesis, University of Potsdam  
2010-2013

**MICHAEL FRITZ, ADVISOR**

“High resolution records from eastern Beringia“

PhD thesis, University of Potsdam, 2008-2012.

**JOSEFINE LENZ, ADVISOR**

“Late Quaternary landscape dynamics in the Western Canadian Arctic derived from lake sediments on Herschel Island (Southern Beaufort Sea).”

MSc thesis, University of Greifswald, Nov. 2011

**FABIAN SCHMITZ, ADVISOR**

“Analyse hyperspektraler Chris-Proba-Fernerkundungsdaten zur Bestimmung der Morphometrie von Thermokarst-Seen im westlichen Lenadelta (Sibirien) –

Hyperspectral analysis of Chris-Proba data for the investigation of thermokarst lakes bathymetry in the western Lena Delta (Siberia)“.

Masters thesis, University of Potsdam, June 2007

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FIELD EXPERIENCE

**EXPEDITION LEADER**

Joint German-Canadian-Scottish-American expedition «Yukon Coast 2014».

Joint German-Canadian-Scottish expedition «Yukon Coast 2013».

Joint German-Canadian expedition «Yukon Coast 2012».

Joint German-Canadian expedition «Yukon Coast 2011».



Joint German-Canadian expedition «Yukon Coast 2010».  
Joint German-Canadian expedition «Yukon Coast 2009».  
Joint German-Canadian expedition «Yukon Lakes 2009 ».  
Joint German-Canadian expedition «Yukon Coast 2008 ».  
Joint German-Canadian expedition «Yukon Coast 2006 ».

#### **FIELD INVESTIGATOR**

Lena Delta, Siberia, Russia, August-September 2005  
Herschel Island, Yukon Territory, Canada, September 2003

#### **FIELD ASSISTANT**

Herschel Island and Yukon Coast, Inuvialuit land, Canada, August 2004

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### INTERNATIONAL COLLABORATIONS

#### **MCGILL UNIVERSITY, MONTRÉAL, CANADA**

Collaboration with Wayne Pollard on permafrost and ground ice  
Seven joint expeditions to the western Canadian Arctic  
more than 10 joint publications  
Joint supervision of students  
Memorandum of Understanding between AWI and McGill signed in 2009.

#### **GEOLOGICAL SURVEY OF CANADA ATLANTIC, HALIFAX, CANADA**

Collaboration with Gavin Manson and Nicole Couture on coastal erosion and  
nearshore dynamics  
Four Joint expeditions to the western Canadian Arctic  
Joint supervision of students  
Memorandum of Understanding between AWI and the GSC pending

#### **UNIVERSITY OF EDINBURGH, EDINBURGH, UNITED KINGDOM**

Collaboration with Isla Myers-Smith on permafrost-vegetation interaction  
Two joint expeditions to the western Canadian Arctic  
PhD student in co-tutelle with University of Potsdam to start in the fall of 2014

#### **QUEEN'S UNIVERSITY, KINGSTON, CANADA**

Collaboration with Scott Lamoureux and Melissa Lafrenière on small catchment  
hydrology and geochemistry  
One joint expedition to the western Canadian Arctic  
PhD student visits to Queen's

#### **VIRGINIA TECH UNIVERSITY, USA**

Collaboration with Nina Stark on geotechnical characteristics of nearshore sediment  
One joint expedition to the western Canadian Arctic

#### **PERMAFROST INSTITUTE, YAKUTSK, RUSSIA**

Collaboration with Mikhail Grigoriev on coastal erosion in the Laptev Sea  
Several joint publications

#### **UNIVERSITY OF ALASKA FAIRBANKS, FAIRBANKS, USA**

Collaboration with Vladimir Romanovsky on the implementation of the Global  
Terrestrial Network for Permafrost (GTN-P)  
Several joint publications

#### **NATIONAL SNOW AND ICE DATA CENTER, BOULDER, USA**

Collaboration with Kevin Schaefer on the elaboration of policy options resulting from permafrost thaw  
Several joint publications

#### **CENTRE D'ETUDES NORDIQUES, UNIVERSITE LAVAL, CANADA**

Collaboration with Warwick Vincent and Mickael Lemay on the implementation of permafrost monitoring on Herschel Island  
Establishment of Herschel Island as a key site in the Canadian ADAPT program

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#### **OUTREACH**

##### **PANELIST AND MODERATOR**

Outreach events, in Germany, France, Norway, USA & Russia

##### **TV DOCUMENTARY FEATURE**

“The Polar Sea“, ZDF/Arte, 2014

“2025 – Der Globale Klimawandel“, Bayerische Rundfunk Germany, 2007

“Brilliant Minds“, Deutsche Welle TV international, 2009

##### **TV & RADIO INTERVIEWS**

Selected media: Deutschland Radio Kultur, Hessische Rundfunk, Radio France International, Radio Classique, Radio Bremen, UN Radio.

##### **PRESS ARTICLES**

National Geographic, New Scientist, La Recherche, The Gazette, The Edmonton Journal, Inuvik Drum, (more than 50 articles in total)