

# POTSDAM SUMMER SCHOOL 2014



23.6.-4.7.2014

ARCTIC IN THE ANTHROPOCENE

Programme

▶ [potsdam-summer-school.org](http://potsdam-summer-school.org)

1st WEEK: 23.6.-29.6.2014  
ARCTIC IN THE ANTHROPOCENE

## MON 23.06. IASS

### Setting the Scene & Overview

9:00-9:30	Gathering & Morning Coffee
9:30-10:00	Welcome Speeches
10:00-12:30	<p>Introduction of organizers Mark Lawrence/IASS, Bernd Uwe Schneider/GFZ, Bernhard Diekmann/AWI, Manfred Strecker/Uni Potsdam, Daniel Klingensfeld/PIK,</p> <p>Introduction to Summer School Format Arctic Research Networks, Hughes Lantuit, AWI</p> <p>Introduction to Stakeholder Engagement, Impact of Science, Ilan Chabay, IASS</p>
12:30-14:00	Lunch
14:00-15:00	Key Note Talk and Discussion "Global Transitions and the Arctic: A Systems Science Approach" Pavel Kabat, IIASA
15:00-15:30	"Setting the Scene", Ande Trosten, Saami Council
15:30-16:00	Coffee Break
16:00-17:30	Key Note Talk and Discussion "Earth System Dynamics: Interactions between the Bio- and the Geosphere" Volker Josef Mosbrugger, Senckenberg
17:30-18:30	Key Note Talk and Discussion "The Arctic Today – a Vision for Tomorrow" Peter Prokosch, GRID-Arendal
18:30-20:30	Dinner/BBQ on IASS Roof-top Terrace

## TUE 24.06. ALBERT EINSTEIN CAMPUS

### The Changing Arctic Environment – The Scientific Basis I

#### Ice Sheet and Sea Ice Dynamics

	Welcome and Introduction to Albert Einstein Campus, Bernd Uwe Schneider, GFZ
09:00-10:30	1 Ice Sheet and Sea Ice Dynamics
	1.1. Ice sheet dynamics and sea level, Angelika Humbert, AWI
	1.2. Remote sensing with navigation satellite systems: Overview and applications in polar regions, Jens Wickert, GFZ
	1.3. Ice shrinkage in Greenland from GRACE and Icesat satellite mission data and snow mass balance, Andreas Groh, GFZ
	1.4. Sea ice dynamics: Observations and predictions, Ruediger Gerdes, AWI
10:30-11:00	Coffee Break
11:00-12:30	Critical Review and Lessons learned
12:30-14:00	Lunch
14:00-15:30	Walking Tour around the Albert Einstein Campus
15:30-16:00	Coffee Break
16:00-18:00	Poster Session AWI, GFZ, PIK
18:30-20:30	Barbeque at Albert Einstein Campus

## WED 25.06. ALBERT EINSTEIN CAMPUS

### The Changing Arctic Environment – The Scientific Basis II

#### Climate and Geo-Ecosystem Change, Permafrost and Greenhouse Gas Cycles

09:00-10:30	2 Climate and Geo-Ecosystem Change Moderation Renate Treffeisen, AWI
	2.1 The Arctic Atmosphere, Markus Rex, AWI
	2.2 Coupling between the Arctic and European Climate System, Ralf Jaiser, AWI
	2.3 Warming of the Arctic Ocean, Marine Ecological Consequences, Eva Maria Nöthig, AWI
10:30-11:00	Coffee Break
11:00-12:30	Critical Review and Lessons learned
12:30-14:00	Lunch
14:00-15:30	3 Permafrost and Greenhouse Gas Cycles Lectures Moderation Maria Martin, PIK
	3.1 Changes of the Permafrost Landscape and Coast Lines, Paul Overduin, AWI
	3.2 Carbon in Permafrost, Guido Grosse, AWI
	3.3 Microbial Carbon Decomposition, Dirk Wagner GFZ
	3.4 Permafrost-GHG-Climate Linkages, Torsten Sachs, GFZ
15:30-16:00	Coffee break
16:00-18:00	Critical Review and Lessons learned
18:30-19:30	Reception with Mayor of Potsdam at the Wissenschaftsetage

THU 26.06.

## ALBERT EINSTEIN CAMPUS

### The Long Term Perspective and Recent Anthropogenic Influence

Lessons from the Past and Predictions for the Future, Arctic Resource Potential

Moderation Volker Klemann, GFZ

09:00-10:30	4 Lessons from the Past and Predictions for the Future
	4.1 The key role of global solid Earth processes in the onset of northern hemisphere glaciations, Stephan Sobolev / Bernhard Steinberger, GFZ
	4.2 Linking tectonic history and dynamics of the Greenland Ice Sheet, Irina Rogoshina / Alexei Petrunin, GFZ
	4.3 Response of Greenland ice sheet to climate change, Andrey Ganopolski, PIK
	4.5 Arctic Environments since the last Ice Age, Bernhard Diekmann, AWI

10:30-11:00 Coffee Break

11:00-12:30 Critical Review and Lessons learned

12:30-14:00 Lunch

14:00-15:30	5 Arctic Resource Potential
	5.1 Arctic Mineral Resources, Warner Bruckmann, GEOMAR
	5.2 Arctic Hydrocarbon Resources, Bernard Coakley, Geophysical Institute, Fairbanks, Alaska USA

15:30-16:00 Coffee Break

16:00-18:00 Critical Review and Lessons learned

18:30-20:30 Buffet in the Park

FRI 27.06.

## IASS

### Thawing Relationships, Melting Structures?

Governance of a Changing Arctic – Strategic and Regulatory Challenges

Framing, Ilan Chabay, IASS

09:30-10:30	How do we deal with all this Knowledge? What Climate Change, Sustainability Challenges and Georisks mean for Governance, Werner Jann, University of Potsdam
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10:30-11:00 Coffee Break

11:00-12:30	International Law and Governance of the Arctic Bernard Funston, Former Chairman of the Canadian Polar Commission, Kathrin Keil and Birgit Lode, IASS,
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12:30-14:00 Lunch

14:00-15:30	Ocean Governance in the Arctic – Challenges and Perspectives Kate Houghton and Sebastian Unger, IASS
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15:30-16:00 Coffee Break

16:00-17:30	Visions for Arctic Cooperation Golo Bartsch, Bundeswehr Planning Office, Neil Hamilton, Greenpeace, Dustin Neuneyer, PRI Principles for Responsible Investment
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Moderation: Bernard Funston

17:30-18:00 Reflection and Feedback on week I

18:00-19:30 Dinner on IASS Roof-top Terrace

Evening at own Leisure

**SAT 28.06.**

Visit to Ethnological Museum in Berlin and Guided Tour  
rest of the day at own leisure

**SUN 29.06.**

All day at own leisure



Foto: Tourism and Marketing GmbH of the State of Brandenburg (TMB)

## 2nd WEEK: 30.6.-04.07.2014 ARCTIC IN THE ANTHROPOCENE

**MON 30.06.**

**UNIVERSITY OF POTSDAM**

**Linking Science and Policy**

**Communicating the Arctic**

9:00-9:30	Welcome Speech at University Patrick O'Brien, University of Potsdam
9:30-10:30	Communicating the Arctic: Conflicting Narratives, Images, Messages Heinz Gutscher, UTZ and Monika Zessnik/Viola König, Ethnological Museum Berlin  Moderation: Ilan Chabay, IASS
10:30-11:00	Coffee Break
11:00-12:30	Science-policy 'Duets' 1. Emissions and Black Carbon in the Arctic  Axel Lauer, IASS + Lars-Otto Reiersen, AMAP 2. Fresh Water Systems in the Arctic and how they are endangered Julia Boike, AWI + Fritz Holzwarth, BMUB Moderation: Volker Rachold
12:30-14:00	Lunch
14:00-15:30	Science-policy 'Duets' 3. Arctic Hydrocarbon Resources  Alexander Gusev/Marianne Flynn, IASS + Jan Kosmol, UBA 4. Shipping and Transport in the Arctic Kathrin Keil, IASS + Tianbing Huang, IMO Moderation: Volker Rachold
15:30-16:00	Coffee break

16:00-17:30	Introduction to Planning Process, Heather Coleman, PacMARA, John Crump, GRID-Arendal, Jeff Ardron, IASS
18:00-21:30	Public Event "the Arctic in Times of Climate Change – What to expect?" Key Note: Peter Lemke Panel Discussion: Hans-Wolfgang Hubberten, AWI, Hans-Joachim Kümpel/BGR, Peter Lemke, AWI,  Nele Matz-Lück/Christian-Albrechts-University, Kiel Moderation: Thomas Prinzer followed by reception

TUE 01.07. IASS Planning Process	
Terrestrial Arctic	
09:00-10:30	Looking for Black Swans in the Arctic: New Governance Concepts to deal with complex, uncertain and ambiguous Risks, Ortwin Renn, University of Stuttgart
10:30-11:00	Coffee Break
11:00-12:30	Start of Planning Process Distribution of Planning Tasks, Working Group set-ups Heather Coleman, John Crump, Jeff Ardron
12:30-14:00	Lunch
14:00-15:30	Planning Process Working Groups Heather Coleman, John Crump, Jeff Ardron
15:30-16:00	Coffee Break
16:00-17:30	Planning Process Working Groups Heather Coleman, John Crump, Jeff Ardron
17:30-18:30	Poster Session IASS
18:30-20:30	Picnic in IASS Garden

WED 02.07. IASS Planning Process	
Marine Arctic	
09:00-10:30	Planning Process Working Groups- Marine Aspects of Case Studies – Surrogacy- Decision Support Tools – Overview and Compatibilities Expert: Renate Treffeisen, AWI Heather Coleman, John Crump, Jeff Ardron
10:30-11:00	Coffee break
11:00-12:30	Planning Process Working Groups- Research Positions of Group based on infos from week I + earlier Planning Process Presentations- Marine Reporting Heather Coleman, John Crump, Jeff Ardron
12:30-14:00	Lunch
14:00-18:30	Bike trip/traces of Arctic Climate Conditions, Discussions on Arctic Visions
EVENING	Evening at own Leisure

Foto: Tourism and Marketing GmbH of the State of Brandenburg (TMB)



## THU 03.07. IASS

### Planning Process

#### The Whole Picture

09:00-10:30	Planning Process Working Groups- Marine and Terrestrial Discussion- Stakeholder Involvement - Communication Heather Coleman, John Crump, Jeff Ardron
10:30-11:00	Coffee Break
11:00-12:30	Planning Process Working Groups- Representativity- Setting Targets + Mock Planning Process Overview Heather Coleman, John Crump, Jeff Ardron
12:30-14:00	Lunch
14:00-15:30	Planning Process working Groups- Mock Planning Processes Heather Coleman, John Crump, Jeff Ardron
15:30-16:00	Coffee Break
16:00-18:30	Planning Process Working Groups- Mock Planning Processes- Position Presentations Heather Coleman, John Crump, Jeff Ardron
18:30-20:30	Dinner on IASS Roof-top Terrace

## FRI 04.07. IASS

### Day of Conclusion

09:00-10:30	Continuation/ Finish of Planning Process Presentations Heather Coleman, Jeff Ardron
10:30-11:00	Coffee Break
11:00-12:30	Reality Check & Expert Challenge What are open questions? What are the next steps?  Gerlis Fugmann, APECS, Heather Coleman, PACMARA, Jeff Ardron, IASS, Kathrin Keil, IASS Bernd Diekmann, AWI, NN, GFZ, NN, University of Potsdam, NN, PIK
12:30-14:00	Lunch
14:00-15:30	From young professionals to young professionals: What impact can young professionals have in the Arctic? Gerlis Fugmann, APECS
15:30-16:00	Coffee to Go
19:00-00:00	Farewell Party at IASS

## CONTACT

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# POTSDAM SUMMER SCHOOL 2014

Partners:



Alfred Wegener Institute  
Helmholtz Centre for  
Polar and Marine Research  
(AWI)



Helmholtz Centre  
Potsdam - GFZ  
German Research Centre  
for Geosciences



Institute for  
Advanced Sustainability  
Studies e.V. (IASS)



Potsdam Institute for  
Climate Impact Research  
(PIK)



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