

# PAST GATEWAYS

Palaeo-Arctic  
Spatial and Temporal Gateways

Third International Conference  
and Workshop  
May 18th – 22nd, 2015  
in Potsdam, Germany



## CONFERENCE REPORT

The Third International PAST Gateways Conference and Workshop was held in Potsdam, Germany from 18-22 May 2015 following on from two very successful conferences of the PAST Gateways network in St. Petersburg, Russia in May 2013 and in Trieste, Italy, May 2014.

PAST Gateways is an IASC endorsed network research program, the scientific goal of which is to understand Arctic environmental change during the period preceding instrumental records and across decadal to millennial timescales. The focus of the six year program is on the nature and significance of Arctic gateways, both spatial and temporal, with an emphasis on the transitions between major Late Cenozoic climate events such as interglacials to full glacials and full glacial to deglacial states, as well as more recent Holocene fluctuations.

There are three major themes to the program:

- (1) Growth and decay of Arctic Ice Sheets;
- (2) Arctic sea-ice and ocean changes,
- (3) Non-glaciated Arctic environments, which have been expanded for the conference by the topic
- (4) Holocene Arctic environment.



Participants of the PAST Gateways conference and workshop held in Potsdam, 18-22 May 2015

The circum-Arctic focus of PAST Gateways and its membership ensured a wide representation of Arctic researchers from Europe, Russia, Canada and USA at the conference. 78 people participated at the PAST Gateways Conference in Potsdam, among them 20 PhD students and 15 PostDocs. The conference had a mix of presentations given by both experienced researchers and Early Career Researchers (ECR) who were contacted via APECS, PYRN and the University of the Arctic.

Invited lectures were given by 4 leading international scientists working in the Arctic:

1. Lev Tarasov - Department of Physics and Physical Oceanography, Memorial University of Newfoundland, Canada: "The last Northern hemispheric deglaciation: missing ice, data/model challenges, and opportunities".
2. Volker Rachold - International Arctic Science Committee, Potsdam, Germany: "Future priorities for Arctic Research".
3. Julian Murton - Department of Geography, University of Sussex, Brighton, United Kingdom: "Permafrost history and environmental change at the margin of Beringia and the Laurentide Ice sheet, Tuktoyaktuk Coastlands, western Arctic Canada".
4. Marit-Solveig Seidenkrantz - Department of Geoscience, Aarhus University, Denmark: "Variability of late Holocene ocean and atmosphere circulation in the Labrador Sea and North Atlantic region - or why that which does not fit, fits extra well!".

The conference consisted of two and a half days of scientific presentations and discussions, as well as a full-day field-trip to the Quaternary landscapes surrounding Potsdam, which were shaped by the last advance of the Scandinavian Ice Sheet. Two different excursions were offered: One bike-tour lead by Bernhard Diekmann to the Lake Templiner and Schwielow concentrated on the natural as well as cultural heritage of Potsdam. The second tour by bus was lead by Olaf Juschus to the area of Luckenwalde and Baruth and gave insights regional Quaternary geology.



The Quaternary Geology and Geomorphology of Potsdam excursion lead by Olaf Juschus (orange vest).

REPORT

Time	Mon, May 18	Tue, May 19	Wed, May 20	Thu, May 21	Fri, May 22	Time
8:30	<i>Participants arrange their travel to Potsdam on their own</i>	<b>Opening &amp; Keynote 1</b>	<b>One Day Excursion</b>	<b>Keynote 3</b>	<b>Keynote 4</b>	8:30
8:45						8:45
9:00		<b>Session 1-1</b>		<b>Session 2-1</b>	<b>Session 3-1</b>	8:00
9:15						8:15
9:30		<i>Coffee Break</i>		<i>Coffee Break</i>	<i>Coffee Break</i>	8:30
9:45						8:45
10:00		<b>Session 1-2</b>		<b>Session 2-2</b>	<b>Session 3-2 &amp; Closing Ceremony</b>	10:00
10:15						10:15
10:30		<i>Lunch break</i>		<i>Lunch break</i>	<i>Lunch break</i>	10:30
10:45						10:45
11:00		<b>Keynote 2</b>		<b>Session 2-3</b>	<i>Poster Presentation 1</i>	11:00
11:15						11:15
11:30		<b>Session 1-3</b>		<i>Poster Session 1</i>	<i>Poster Session 2</i>	11:30
11:45						11:45
12:00		<i>Poster Presentation 1</i>		<i>Coffee Break</i>	<i>Coffee Break</i>	12:00
12:15						12:15
12:30		<b>Poster Session 1</b>		<b>1. SC Meeting</b>	<b>Poster Session 2</b>	12:30
12:45						12:45
13:00		<i>Registration</i>		<b>PYRN Social Event</b>	<i>Dinner on your own</i>	13:00
13:15						13:15
13:30	<b>Ice Breaker Party</b>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	13:30		
13:45				13:45		
14:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	14:00		
14:15				14:15		
14:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	14:30		
14:45				14:45		
15:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	15:00		
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15:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	15:30		
15:45				15:45		
16:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	16:00		
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16:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	16:30		
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17:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	17:00		
17:15				17:15		
17:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	17:30		
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18:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	18:00		
18:15				18:15		
18:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	18:30		
18:45				18:45		
19:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	19:00		
19:15				19:15		
19:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	19:30		
19:45				19:45		
20:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	20:00		
20:15				20:15		
20:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	20:30		
20:45				20:45		
21:00	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	21:00		
21:15				21:15		
21:30	<i>Registration</i>	<i>Dinner on your own</i>	<i>Dinner on your own</i>	21:30		

Overview of conference schedule for the PAST Gateways conference and workshop 2015.



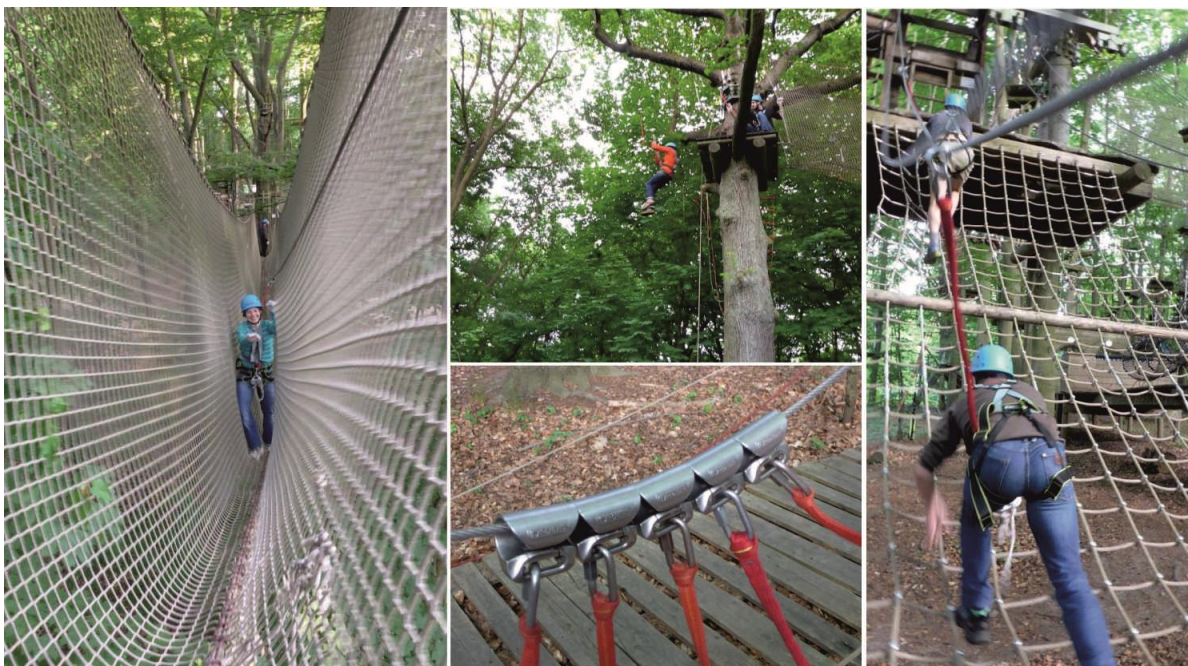
REPORT

All poster presenters had the unique chance to present their poster prior the poster session in the auditorium. Altogether 27 one-slide contributions were received and presented in one minute. We received very positive feedback by the poster presenters as well as by listening participants who were able to get a quick overview on topics presented during the poster session.



Poster presenters lining up for their athletic 1-minute poster presentation.

A social evening for ECR was organized by the Permafrost Young Researchers Network (PYRN). Here, we trained a special form of networking skills including ropes, karabiner, nets and many funny barriers high up in the trees of the Telegrafenberg. After we mastered the sporting challenge in different elevations and speed, we reflected the day and enjoyed German sausage and beer at the beer garden of the Adventure Park.



Practical networking of Early Career Researchers in Potsdam's AdventurePark.

REPORT

For the first time, the two best posters were awarded during the PAST Gateways conference and workshop. One prize was given to Henry Patton (University of Tromsø, Norway) with a poster on “Numerically modelling the growth and collapse of the Barents Sea ice sheet”. Another poster prize was awarded to Juliane Wolter (Alfred Wegener Institute, Potsdam, Germany) for her poster entitled “Thermokarst lake history and stable tundra vegetation since the 18<sup>th</sup> century in a Low Arctic setting, Yukon Territory, Canada”. Awardees received a certificate together with an AWI head and T-Shirt.



Henry Patton and Juliane Wolter receiving their poster prize by PAST Gateways chair Colm O'Cofaigh and LOC-Chair Hanno Meyer.

According to participant`s feedback the expectations were totally met if not even exceeded. Here are some opinions by Early Career Scientists:

*“PAST gateways in Potsdam 2015 was from my point of view a great conference! Everything went perfect, from the organization, to the variety of talks, to the field trips and the social events! I was also happy to get some good comments on my poster and to meet some known and new faces during the conference! Great idea with the possibility to join either the bus or the bike excursion! You put the bar high. Great job!”*

*“I think that the Past Gateways conference in Bergen were generally well organized and fully fulfilled my original expectations in terms of scientific discussions and German cuisine. I came home with a lot of good experiences, ideas and strengthened networking possibilities. (...) Personally I would have enjoyed to have a bit more paleocenography within the program, but this is of personal interest of course.”*

*“I think that a very good solution was to present posters during short slide-session and I really appreciate that organisers invited early career researchers to convey oral sessions. It was one of the best meetings I have ever attended!”*

## REPORT

*"The location was simply awesome, impossible to ask something better. The topics covered by seminars/posters were really wide and specific at the same time, it was good to deepen my knowledge on some topics I am familiar with and to hear something new about topics I know less about (...) It's hard for me to select something I enjoyed most, as it was all new and cool; the keynote lectures inspired me particularly. There is absolutely nothing I didn't like."*

*"My participation met all the preceding goals in addition to providing the opportunity to discuss with scientists whose area of research interest corresponded to mine. I am very thankful to the local organizing committee, as well as field excursions guides, PAST Gateways Steering Committee, authors, presenters, and all the Conference Sponsors for such nice organization and opportunity to visit this event."*

The results from the PAST Gateways conference will be published as a PAST Gateways special issue in a major international journal (Quaternary Science Reviews), which will comprise a series of papers from across the Arctic on the major themes of the meetings, and be multidisciplinary in nature, integrating field and modelling investigations. The special issue will be front-ended by a substantive introductory paper that will critically review the major findings of the special issue and outline major research priorities for future Arctic palaeoclimate research.

The PAST Gateways steering meeting decided to organize the next conference and workshop in Norway.

The PAST Gateways 2015 local organizing committee, participants and especially the participating Early Career researchers are grateful for generous support by the International Arctic Science Committee (IASC) and the Bolin Centre for Climate Research at University Stockholm which enabled to greatly reduce the registration fee for ECR. Further support was given by the German Science Foundation (DFG), International Permafrost Association (IPA), as well as the ThermoScientific, Picarro Inc. and BetaAnalytics.



Support for ECR was highly appreciated!