

# Helmholtz Climate Initiative

## ‘Regional Climate Change’ – REKLIM



2<sup>nd</sup> International REKLIM Conference

23 – 26 September 2019

Umweltforum Auferstehungskirche

Berlin, Germany

### Programme and Abstracts

**HELMHOLTZ**  
SPITZENFORSCHUNG FÜR  
GROSSE HERAUSFORDERUNGEN

**REKLIM**  
Helmholtz-Verbund  
Regionale Klimaänderungen

# Important information

## Scientific topics and session titles

- Topic 1:** Coupled regional modelling
- Topic 2:** Sea level rise in a warming climate: from global drivers to coastal impacts
- Topic 3:** Land-atmosphere interactions: from measurements to modelling
- Topic 4:** Atmospheric composition and climate: interaction between global and regional scales
- Topic 5:** Extreme events across scales (past – present – future)
- Topic 6:** Climate change adaptation as societal challenge

## Rooms

### Umweltforum (UFO)

**PH:** Plenary Hall ('Großer Saal')

**S8:** Seminar room 8, 1<sup>st</sup> floor

**S9:** Seminar room 9, 1<sup>st</sup> floor

**G:** Gallery, 1<sup>st</sup> floor

### Neue Mälzerei (M)

**MP:** Plenary Hall, 5<sup>th</sup> floor

**MKS:** Kuppelsaal Süd, 5<sup>th</sup> floor

**MKN:** Kuppelsaal Nord, 5<sup>th</sup> floor

**MS:** Seminar I+II, 5<sup>th</sup> floor

# Conference Programme

Sunday 22 September	
17:00-20:00	Pre-registration on site (Foyer UFO)
18:00-20:00	Icebreaker with drinks and snack

Monday 23 September				
09:00-11:00	Registration (Foyer UFO)			
11:00-12:00	Opening Plenary (PH)			
	Regine Günther <i>(Senator for the Environment, Transport and Climate Protection, Berlin)</i>  Prof Peter Braesicke <i>(Karlsruher Institut für Technologie KIT; scientific coordinator REKLIM)</i>			
12:00-13:00	Plenary Session Keynotes (Room PH)			
	'Toward process-level regional modelling and prediction of Arctic climate system' Prof Wieslaw Maslowski <i>(Department of Oceanography, Monterey, USA)</i>			
	'Tipping points in the Earth system: a perspective from the past' Prof Alan Haywood <i>(School of Earth and Environment University of Leeds, United Kingdom)</i>			
13:00-14:30	Lunch break (S8 and S9)			
14:30-15:45	Parallel Sessions I			
	Room PH	Room MKN	Room MP	Room MS
	<b>Topic 5</b> Extreme events and their drivers, Part 1  TP5-O-01 – TP5-O-05		<b>Topic 1</b> Coupled regional modelling: atmosphere – hydro-sphere  TP1-O-01 – TP1-O-05	<b>Topic 3</b> Land-atmosphere interactions, Part 1  TP3-O-01 – TP3-O-05
15:45-16:15	Coffee break S8		Coffee break MKS	
16:15-17:30	Parallel Sessions II			
	Room PH	Room MKN	Room MP	Room MS
	<b>Topic 5</b> Extreme events and their drivers, Part 2  TP5-O-06 – TP5-O-10	<b>Topic 6</b> Concepts of adaptation  TP6-O-01 – TP6-O-05	<b>Topic 1</b> Coupled regional modelling: atmosphere – land  TP1-O-06 – TP1-O-10	<b>Topic 3</b> Land-atmosphere interactions, Part 2  TP3-O-06 – TP3-O-10

Tuesday 24 September				
09:00-10:15	Parallel Sessions III			
	Room PH	Room MKN	Room MP	Room MS
	<b>Topic 5</b> Lessons from the past, Part 1  TP5-O-11 – TP5-O-15	<b>Topic 6</b> Case studies of adaptation  TP6-O-06 – TP6-O-10	<b>Topic 1</b> Coupled regional modelling: atmosphere – cryosphere  TP1-O-11 – TP1-O-15	<b>Topic 3</b> Land-atmosphere interactions, Part 3  TP3-O-11 – TP3-O-15
10:15-10:45	Coffee break (S8 and S9)			
10:45-11:45	Plenary Session Keynotes (Room PH)			
	'Evaporation happens at all scales: can we use the turbulent flux data improve our models?' Dr Eleanor Blyth ( <i>Centre for Ecology &amp; Hydrology, Wallingford, United Kingdom</i> )			
	'Community-based adaptation and disaster risk management – where climate meets society' Prof Jakob. Rhyner ( <i>University of Bonn, Germany</i> )			
11:45-13:15	Lunch break (S8 and S9)			
13:15-14:45	Open Panel Discussion for conference participants and the public 'On the importance of Science Diplomacy in the Arctic realm' (Room PH)			
	Prof Rasmus Gjedssø Bertelsen (UiT The Arctic University of Norway, Norway) Embla Eir Oddsdóttir (Director, Icelandic Arctic Cooperation Network, Iceland) Dr Volker Rachold (German Arctic Office, Germany) Prof Maria Rentetzi (Technical University Berlin, Germany) Prof Veli-Pekka Tynkkynen (University of Helsinki, Finland) Moderation: Grace Dobush			
14:45-17:15	General Poster Session			
	Gallery 1 <sup>st</sup> floor PH			
	<b>Topic 1</b> Coupled regional modelling TP1-P-01 – TP1-P-06  <b>Topic 2</b> Sea level rise in a warming climate: from global drivers to coastal impacts TP2-P-01 – TP2-P-05  <b>Topic 3</b> Land-atmosphere interactions: from measurements to modelling TP3-P-01 – TP3-P-07	<b>Topic 4</b> Atmospheric composition and climate: interaction between global and regional scales TP4-P-01 – TP4-P-02  <b>Topic 5</b> Extreme events across scales (past – present – future) TP5-P-01 – TP5-P-21  <b>Topic 6</b> Climate change adaptation as societal challenge TP6-P-01 – TP6-P-05		
17:30	Departure to social event 'EUREF Campus' Berlin with guided tour and conference dinner			
18:00	Social Event			

Wednesday 25 September				
09:00-10:15	Parallel Session IV			
	Room PH	Room MKN	Room MP	Room MS
	<b>Topic 5</b> Lessons from the Past, Part 2  TP5-O-16 – TP5-O-20		<b>Topic 5</b> Future extremes: scenarios and forecasting  TP5-O-21 – TP5-O-25	<b>Topic 4</b> The large-scale perspective  TP4-O-01 – TP4-O-05
10:15-10:45	Coffee break (S8 and S9)			
10:45-11:45	Plenary Session Keynotes (Room PH)			
	'Lessons for international action from the Montreal Protocol' Prof John Pyle ( <i>University of Cambridge, United Kingdom</i> )			
	'Sea level rise - do we have to be afraid or just worried?' Prof Anders Levermann ( <i>Potsdam Institute for Climate Impact Research, Germany</i> )			
11:45-13:15	Lunch break (S8 and S9)			
13:15-14:30	Parallel Session V			
	Room PH	Room MKN	Room MP	Room MS
	<b>Topic 5</b> Long-term variability of extremes  TP5-O-26 – TP5-O-30		<b>Topic 2</b> Sea level change  TP2-O-01 – TP2-O-05	<b>Topic 4</b> The regional perspective  TP4-O-06 – TP4-O-10
14:30-14:45	Room change			
14:45-15:30	<b>Open Plenary Session for conference participants and the public</b> <b>'Main results of the IPCC Special Report on Ocean and Cryosphere in a changing climate' (Room PH)</b>			
	'Video conference call directly from Monaco' Prof Hans-Otto Pörtner (IPCC Co-chair, Working Group II)			
	Further experts at conference – general discussion:  Prof Anders Levermann (Potsdam Institute for Climate Impact Research (PIK), Germany), Lead author IPCC AR5 Chapter 13 'Sea Level Change'  Prof Beate Ratter (University Hamburg and Helmholtz Centre Geesthacht, Germany), Lead author SROCC Chapter 6 'Extremes, Abrupt Changes and Managing Risks'  Dr Ingo Sasgen (AWI), Topic Speaker REKLIM Topic 2 'Sea level change from global to regional and local scales'			
	General discussion, press conference			
15:30-16:00	Closing Plenary (Room PH)			
	Closing remarks			
16:00-16:30	Coffee break (S8 and S9)			

**| AWI | DLR | FZJ | GEOMAR | GFZ | HMGU | HZG | KIT | UFZ |**

ALFRED-WEGENER-INSTITUT Helmholtz-Zentrum für Polar- und Meeresforschung

DEUTSCHES ZENTRUM FÜR LUFT- UND RAUMFAHRT

FORSCHUNGSZENTRUM JÜLICH

GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel

HELMHOLTZ-ZENTRUM POTSDAM Deutsches GeoForschungsZentrum

HELMHOLTZ-ZENTRUM MÜNCHEN Deutsches Forschungszentrum für Gesundheit und Umwelt

HELMHOLTZ-ZENTRUM GEESTHACHT Zentrum für Material- und Küstenforschung

KARLSRUHER INSTITUT FÜR TECHNOLOGIE

HELMHOLTZ-ZENTRUM FÜR UMWELTFORSCHUNG

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