

#### NATIONAL / LOCAL ORGANISING COMMITTEE (LC)

Heinz Glindemann (Hamburg Port Authority, HPA)  
Gabi Gönnert (Landesbetrieb für Strassen, Brücken und Gewässer, LSBG)  
Harro Heyer (Bundesanstalt für Wasserbau, BAW )  
Thomas Bruns (Deutscher Wetterdienst, DWD)

#### INTERNATIONAL SCIENTIFIC COMMITTEE (SC)

Paolo Ciavola (MICORE Project, Italy)  
Ping-Xing Ding (State Key Laboratory for Estuarine and Coastal Research, ECNU, China)  
Craig Donlon (European Space Agency, Netherlands)  
Bruce Glavovic (Resource & Environmental Planning, Massey Univ., New Zealand)  
Karel Heynert (DELTAWARE, Netherlands)  
Kevin Horsburgh (Proudman Lab., Liverpool, United Kingdom)  
Pavel Kabat (Wageningen Univ., Netherlands)  
Hartwig Kremer (LOICZ International Project Office, Institute for Coastal Research, GKSS, Germany)  
Boram Lee (IOC-UNESCO, France)  
Jason Lowe (Met Office Hadley Center, United Kingdom)  
Nobuo Mimura (Center for Water Environment Studies, Ibaraki University, Japan)  
Il-Ju Moon (Cheju National Univ., College auf Ocean Science, South Korea)  
Sylvin Müller-Navarra (Federal Maritime and Hydrographic Agency BSH, Germany)  
Robert Nicholls (Univ. of Southampton - School of Civil Engineering and the Environment, United Kingdom)  
Mark Pelling (King's College London, United Kingdom)  
Ramesh Ramachandran (Anna Univ., Inst. for Ocean Management, India)  
Steven Solomon (Geological Survey of Canada, Canada)  
Hans von Storch (Institute for Coastal Research, GKSS, Germany and Climate Campus, Germany)  
James Syvitski (Community Surface Dynamics Modeling System, Univ. of Colorado-Boulder, US)  
Keith Thompson (Dept of Oceanography, Mathematics, Statistics, Dalhousie Univ., Canada)  
Georg Umgiesser (Institute of Marine Sciences, ISMAR-CNR, Italy)

#### CONTACT

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#### CONGRESS STRUCTURE

The congress will be organised in plenary and moderated poster sessions. Parallel sessions will be avoided; cross-disciplinary exchange is encouraged. Plenaries will be organised along thematic subjects, introduced by key notes.

Poster sessions will be introduced to plenary as oral summaries by selected SC experts. They will subsequently be organised in marketplace format where thematic contributions can be reviewed.

Moderated concluding round tables are planned to foster discussions and a synthesising statement.

#### IMPORTANT DATES

- Abstract Submission and Registration starting December, 2009
- Abstracts due 31 March, 2010
- Paper acceptance May, 2010
- Conference 13-17 September, 2010

#### REGISTRATION

Online registration starts in the beginning of December 2009.

#### ACCOMMODATION

A list of hotels for congress participants will be published on the congress website when registration starts.

Please hand in your abstracts and register for the Storm Surges Congress on our Website:  
<http://meetings.copernicus.org/ssc2010>

#### Support by:



# STORM SURGES CONGRESS

## RISK AND MANAGEMENT OF CURRENT AND FUTURE STORM SURGES



## 2<sup>nd</sup> ANNOUNCEMENT AND CALL FOR ABSTRACTS

EXTENDED DEADLINE FOR ABSTRACT SUBMISSION: 31<sup>ST</sup> MARCH, 2010



13. -17. SEPTEMBER, 2010  
UNIVERSITY OF HAMBURG  
HAMBURG, GERMANY  
[ [www.loicz.org/storm2010](http://www.loicz.org/storm2010) ]

#### ORGANISING INSTITUTIONS:

Land-Ocean Interactions in the Coastal Zone (LOICZ), Core Project of the IGBP and IHDP and GKSS Research Centre, Institute for Coastal Research



Besides climate change, storm surges are exacerbated by anthropogenic forcing including intensive land and sea use along the river-coast continuum. A recent OECD study of extreme floods in 136 port cities foresees an increase of population and asset exposure of between 2-3 times, and 10 times, respectively, by 2070.

TWO SCIENTIFIC AND SOCIAL QUESTIONS ARE CRITICAL:  
How do we deal with the present level of risk?  
How do we respond to changing future conditions?

Answers require interdisciplinary approaches and a coupling of scientific and coastal user discussions. Overcoming fragmented views on a global concern on short and long-term time scales by a joined up thinking is needed involving the assessment of threats and opportunities emerging across the social-ecological system scale of coasts.

Multiple stakeholders to be involved comprise:

- Coastal engineering, and harbour authorities
- Coastal zone and river basin management
- Urban, coastal and marine planning
- Disaster and risk management
- Social development organisations
- Economic planning and insurance business
- Operational oceanography
- Storm surge modellers
- Coastal geoscientists (erosion, subsidence)
- Weather and forecasting services and
- Climate research

The Storm Surges Congress 2010 aims to engage the relevant actors and to serve as an enabling forum for exchange of state-of-the-art expert knowledge and practitioners' views.

The objective is to work towards a common perception of key concerns including options of mitigation and adaptation. Practitioners and researchers are invited to delineate future challenges for science, and dialogue across science-policy-practice interfaces.

The goal is to foster our mutual understanding of relevant spatial, temporal as well as institutional scales that need to be considered in response to current and future storm surge risks.

Photograph: Ron Mulder, [www.stormfoto.nl](http://www.stormfoto.nl)

## SUGGESTED SESSION OUTLINE

*Regions should cover all relevant areas such as polar regions, temperate to sub-tropical and tropical systems, deltas and tidal estuaries.*

### a) Driving factors and scales of storm surges

- Does climate change matter?
- How does surge hazard vary globally?
- Why are so many coastal cities sinking?

*Papers in this theme might address:*

*Climate and climate change*

*Variable storminess*

*Sea level rise/ salt water intrusion*

*Geological processes (e.g. erosion)*

*Water works and coastal defence*

*Oil, gas and groundwater extraction – anthropogenic subsidence*

*Urbanisation, demographic change in coastal areas and deltas*

### b) Contemporary risk and management

- What are the present risks?
- What are the differences between tropical and extra-tropical storms and surges
- People and assets: who pays for the risks?

*Papers in this theme might address:*

*Risk assessment*

*Coastal urbanisation and assets at risk*

*Damage and insurance issues*

*Managing extra tropical storm surges*

*Managing tropical storms surges*

### c) History and intercultural perception

- What did our ancestors do: retreat, protect or advance?
- Acts of God or acts of nature: what was the historical experience of surges?
- How do the media see extreme surge events?

*Papers in this theme might address:*

*Historical accounts of storm surge risk*

*Awareness of storm surge risk*

*Perception of dynamics and drivers of storm surges*

*Media coverage and presentation of natural risks, storm surge events, responses, and predictions*

*Future perceptions of surge risks*

### d) The role of scientific information – dealing with uncertainty

- What is the state of the art in modelling/predicting and projection
- What do we need to know to plan for a regionally more stormy world?
- Should we protect or retreat against increasing surge risk?

*Papers in this theme might address:*

*Information needs of coastal stakeholders*

*Defining the bottom line – reference water levels and current and future flood protection*

*Dealing with uncertainty*

*Current capacity of modelling, predictions, and forecasting*

*Expected level of future (5-10 years horizon) modelling, forecasting and projections*

*Knowledge gaps, e.g. hydrodynamics and bathymetry*

*The role of remote sensing*

*Scenarios of future tropical and extra tropical storminess*

*Scenarios of sea level rise*

*Vulnerability and risk assessment*

*The role of managed realignment*

*Usage of scenarios for adaptation and planning*

*Calculation of the design level*

### e) Institutional dimensions – dealing with uncertainty

- How do our institutions, civil society and public actors respond to storm surges?
- What is the role of warning systems?
- Can good governance handle the risks?

*Papers in this theme might address:*

*Institutional dimensions of storm surge response*

*Civil society as organisational force*

*Public bodies as organisational force*

*Management scales*

*Warning systems: Present and future*

*Technological progress to improve the information basis*

*Effectiveness of hazard lines or set back lines*

*Current reflection of risk and response in governance*

*Institutional response to uncertainty*

## Abstracts

Abstracts need to be submitted and organised in a way to feed into the thematic sections. The SC and LC will take responsibility to review and select abstracts for oral or poster presentation. Please hand in your abstracts on our website.

EXTENDED DEADLINE FOR ABSTRACTS: 31<sup>ST</sup> MARCH, 2010