Chinese–German Joint Symposium on Hydraulic and Ocean Engineering (JOINT2008)

August 24-30, 2008

Darmstadt, Germany

4th Announcement
Background of the Symposium:

It is the global trend in hydraulic and ocean engineering to balance engineering measures with the environment and ecological systems. Complex and difficult issues appear worldwide; they are similar and borderless. This trilateral Chinese-German Joint Symposium on Hydraulic and Ocean Engineering offers a platform for scientists and engineers. The aim is to share ideas, experiences, and also to initiate and to consolidate international research cooperation.

The National Cheng Kung University, the Rostock University, and the Hohai University organized the first trilateral German-Chinese Joint Symposium jointly. It was held in September 2002 in Rostock. A memorandum was signed after the symposium promising the organization of a symposium on a regular basis. The second symposium was held in 2004 in Nanjing. The National Cheng Kung University in Tainan organized the latest symposium in November 2006. Cooperation has been achieved and/or enhanced thereafter, including the exchange of scientists and students, collaboration in joint research projects and consulting in related constructive engineering projects.

Organization:

Professor Shan-Hwei Ou,
President of Tajen University, Pingtung
Professor Yixin Yan,
Vice-President, Hohai University, Nanjing
Professor Dr.-Ing. habil Prof. h.c. Ulrich Zanke,
Professor, Technische Universität Darmstadt and Honorary Professor, Hohai University, Nanjing

Symposium topics:

Original papers are invited on theory, measurement, modelling, and practice for the following topics:

- Coastal and ocean engineering projects and hydraulic structures including ports, harbours, and waterways
- Sediment transport
- Wave theory and wave modelling
- Coastal risks and sustainable development
- River hydraulics, river engineering projects, and hydraulic structures

Conference Chair:

Prof. Dr.-Ing. habil Prof. h.c. Ulrich Zanke
Institute for Hydraulic Engineering and Water Resources Management, Technische Universität Darmstadt.
Scientific Committee:

Shizuo Feng (Qingdao)
Tai-Wen Hsu (Tainan)
Nai Kuan Liang (Taipei)
Ruijie Li (Nanjing)
Sören Kohlhase (Rostock)
Roberto Mayerle (Kiel)
Hanz Niemayer (Norderney)
Silke Wieprecht (Stuttgart)
Yixin Yan (Nanjing)
Chia-Chuen Kao (Tainan)
Ulrich Zanke (Darmstadt)

Main Sponsors:

German Research Foundation (DFG), Bonn
German Federal Ministry of Education and Research (BMBF), Berlin
Nature Science Foundation of China (NSFC), Beijing
National Science Council (NSC), Taipei

Venue:

Welcome Hotel Darmstadt (science | congresses)
http://www.welcome-hotel-darmstadt.de/
Karolinenplatz 4
64289 Darmstadt
Agenda of the Symposium:

August 24 (Sunday)

18:00h – 20:00h  Registration

20:00h – 22:00h  “Ice Breaker” (Official beginning of the Symposium)
Welcome by Mayor of Darmstadt and Ulrich Zanke

August 25 (Monday)

08:00h - 09:00h  Registration
09:00h - 10:00h  Opening Ceremony
10:00h - 10:30h  Group Photo
10:30h - 11:00h  Keynote Speech: Ulrich Zanke
11:00h - 11:30h  Keynote Speech: Yan Yixin
11:30h - 12:00h  Keynote Speech: Tai-Wen Hsu
12:00h - 13:30h  Lunch

13:30h - 15:00h  Lectures session:
  Session 1:
  Coastal and Ocean Engineering projects and Hydraulic Structures including Ports, Harbours, and Waterways (1)
  Session 2:
  Sediment transport and morphodynamics (1)
  Session 3:
  Wave theory and wave modelling (1)

15:00h - 15:30h  Coffee Break

15:30h - 17:00h  Lectures session:
  Session 4:
  Coastal and Ocean Engineering projects and Hydraulic Structures including Ports, Harbours, and Waterways (2)
  Session 5:
  Sediment transport and morphodynamics (2)
  Session 6:
  Wave theory and wave modelling (2)

17:00h – 17:15h  Coffee Break
17:15h – 18:00h  Closure of symposium day and organizational comments
19:00h – 22:00h  Conference Dinner at the Restaurant Castle Frankenstein
August 26 (Tuesday)

08:30h - 10:00h  Lectures session:
Session 7:
Coastal and Ocean Engineering projects and Hydraulic Structures including Ports, Harbours, and Waterways (3)
Session 8:
Sediment transport and morphodynamics (3)
Session 9:
Wave theory and wave modelling (3)
Session 10:
Coastal risks and sustainable development (1)

10:00h - 10:30h  Coffee Break

10:30h - 12:00h  Lectures session:
Session 11 (Special Session):
Coastal and Ocean Engineering projects and Hydraulic Structures including Ports, Harbours, and Waterways (4)
Session 12:
Sediment transport and morphodynamics (4)
Session 13:
Wave theory and wave modelling (4)
Session 14:
Coastal risks and sustainable development (2)

12:00h - 13:30h  Lunch

13:30h - 15:00h  Lectures session:
Session 15:
Coastal and Ocean Engineering projects and Hydraulic Structures including Ports, Harbours, and Waterways (5)
Session 16: (Special Session)
Sediment transport and morphodynamics (5):
Properties, Dynamics and Treatment of Fluid Mud in Rivers and Estuaries
Session 17:
Wave theory and wave modelling (5)
Session 18:
Coastal risks and sustainable development (3)

15:00h - 15:30h  Coffee Break

15:30h - 17:00h  Lectures session:
Session 19:
River hydraulics, river engineering projects and hydraulic structures (1)
Session 21:
Wave theory and wave modelling (6)

17:00h - 17:15h  Coffee Break
17:15h – 18:00h  Closing Session
19:00h – 22:00h  Gala Dinner at the “Lichtenberghaus”

Additional remarks:

The presentation time is 15 minutes for each talk followed by a short discussion. The detailed lecture schedule will be published in the final announcement and on our website.
# Agenda of the Ladies Tour:

**August 24 (Sunday):**

<table>
<thead>
<tr>
<th>Time</th>
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<td>10:30h - 12:15h</td>
<td>Sightseeing in Darmstadt with a Guide (Part 1)</td>
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<tr>
<td>12:15h - 13:30h</td>
<td>Lunch in Darmstadt City</td>
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<tr>
<td>13:30h - 14:30h</td>
<td>Sightseeing in Darmstadt (Part 2)</td>
</tr>
<tr>
<td>14:30h - 15:30h</td>
<td>Coffee Break</td>
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<tr>
<td>15:30h - 17:00h</td>
<td>Shopping in Darmstadt downtown area</td>
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**August 26 (Tuesday):**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>09:00h - 9:45h</td>
<td>Transfer to Heidelberg</td>
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<tr>
<td>10:00h - 12:30h</td>
<td>Sightseeing in Heidelberg with a Guide</td>
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<tr>
<td>12:30h - 14:00h</td>
<td>Lunch in Heidelberg</td>
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<tr>
<td>14:00h - 16:00h</td>
<td>Optional: Visit of a Museum or free time (e.g. Shopping) in the old city centre of Heidelberg</td>
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<tr>
<td>16:00h - 16:45h</td>
<td>Transfer to the Hotel in Darmstadt</td>
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<tr>
<td>17:00h - 17:15h</td>
<td>Coffee Break</td>
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<tr>
<td>17:15h -18:00h</td>
<td>Closing Session of the Symposium</td>
</tr>
<tr>
<td>19:00h - 21:00h</td>
<td>Gala Dinner at the Lichtenberghaus (Official end of the Symposium)</td>
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Agenda of the Technical Tour

August 27 (Wednesday)

08:30h – 12:00h  Departure from the Hotels, Transfer from Darmstadt to Duisburg
12:00h – 14:00h  Lunch at Duisburg
14:00h – 16:00h  Visit to Duisburg Harbour (Largest inland harbour in Germany)
16:00h – 17:30h  Transfer from Duisburg to Münster
17:30h – 19:30h  Dinner nearby Münster
19:30h – 21:30h  Transfer from Münster to the Park Hotel Bremen

August 28 (Thursday)

08:00h – 10:30h  Transfer to Espelkamp-Fiestel
10:30h – 12:30h  Visit to Naue GmbH & Co KG (Factory for Geotextiles)
12:30h – 14:30h  Lunch
14:30h – 17:00h  Transfer from Espelkamp-Fiestel to Bremen
17:00h – 19:00h  Visit and sightseeing in Bremen City
20:00h         Dinner in Bremen

August 29 (Friday)

08:00h – 10:00h  Transfer to Emden
10:00h – 11:30h  Visiting of the Ems River Flood Barrier
11:30h – 12:00h  Transfer to Emden
12:00h – 12:30h  Visit of the Emden Harbour (guided bus tour)
12:30h – 14:00h  Lunch in Emden Harbour – “Emder Matjesbuffet”
14:00h – 15:30h  Visit of a dyke construction site and the pumping station at Knock Landmark
16:00h – 17:00h  Visit of the Enercon wind tower fabrication followed by a boat tour around the Emden Harbour
18:00h – 18:15h  Transfer to the Park Hotel Emden
19:00h – 21:00h  Dinner at “À Lasco Library” (Old Emden Church)
21:00h – 23:00h  Emden by Night

August 30 (Saturday)

09:30h – 10:30h  Transfer to Bremerhaven
10:30h – 12:30h  Visit of the “Container Terminal Bremerhaven”
12:30h – 14:00h  Lunch (Official end of the technical tour)
14:00h – 16:30h  Transfer to Hamburg

On the last day there are no hotels booked in Hamburg. For the delegates that leave the tour on this day in the morning a shuttle transfer to Hamburg will be organized. Please indicate whether you have to leave earlier and inform us about your flight schedule so that we can organize the transfer to the airport.
SESSIONS

TOPIC 1
COASTAL AND OCEAN ENGINEERING PROJECTS AND HYDRAULIC STRUCTURES
INCLUDING PORTS, HARBOURS AND WATERWAYS

Session 1: August 25 (Monday); 13:30-15:00

NEEDLE-PUNCHED NONWOVEN GTX IN COASTAL ENGINEERING APPLICATIONS
Georg Heerten

INCREASING DYKE OVERTOPPING SECURITY AS A COUNTERMEASURE TO ACCELERATING SEA-LEVEL RISE
Hanz D. Niemeyer, Ralf Kaiser and Cordula Berkenbrink

STABILITY EVALUATION OF DIKES ALONG THE NORTH-SEA AT WAVE OVERTOPPING
Carsten Pohl and Lars Vavrina

APPLICATION OF COMPLEX FLEXIBLE GEOFABRIC MATTRESS IN SEMI-SUBMERGED DIKE FOR SCOURING CONTROL ON SILT-SAND FOUNDATION IN YANGTZE RIVER ESTUARY
Hai Zhou, Jian Jiang and Hai Ying Chen

Session 4: August 25 (Monday); 15:30 - 17:00

CHINESE-GERMAN COOPERATION FOR DEVELOPMENT OF ECOLOGICALLY SUSTAINABLE INLAND WATERWAYS IN SHANGHAI
Ingrid Dispert and Cornelia Ebert

FISH-PASSABLE PUMPING STATIONS FOR COASTAL TIDAL REGIONS FOR THE RESTORATION OF FISH HABITATS
Sören Knoll and Jian-hua Meng

RESEARCH ON HYDRAULIC PERFORMANCES OF QUARTER CIRCULAR BREAKWATER
Hanbin Gu, Xuelian Jiang and Yanbao Li

RESEARCH ON EVALUATION OF INLAND WATERWAY MAINTENANCE SYSTEM
Yan Zhang, Xue-Jun Feng and Xiu-Juan Guo

Session 7: August 25 (Tuesday); 8:30 - 10:00

CONVERSION OF OLD HARBOUR AREAS ON THE RIGHT BANK OF RIVER WESER IN BREMEN
Andrea Richwien

CHANGE OF AN OLD NAVY BASE TO A MODERN MARINA IN BOLTENHAGEN (BALTIC SEA)
Siegmund Schlie, Bernd Opfermann and Torsten Retzlaff

THE SUBMERGED DISCHARGE TUNNEL IN LUNGMEI NO. 4 NUCLEAR POWER PLANT PROJECT
Ming-Yang Liao and Ching-Peng Shen

LOCATION AND DESIGN OF COOLING WATER INTAKE AND OUTLET STRUCTURES FOR POWER PLANTS IN GERMANY’S COASTAL AREA
Tillmann Baur

Session 11: August 25 (Tuesday); 10:30 - 12:00

ANALYSIS OF UNCERTAINTIES IN COASTAL STRUCTURE DESIGN BY EXPERT JUDGEMENT
Holger Schüttrumpf, Andreas Kortenhaus, Peter Fröhle and Karsten Peters

AN ARTIFICIAL ISLAND FOR THE WIND POWER INDUSTRY 80 KM OFFSHORE IN THE NORTH-SEA
Hans-Dieter Clasmeier
SIZIHWAN BEACH RESTORATION PROJECT: THE FIRST MODEL CASE IN TAIWAN  
John R.-C. Hsu, Melissa M.-J. Yu, F.-C. Lee, J.-C. Chu and S.-R. Liaw

BACKFILLING OF OSTHAFEN HARBOUR BASIN, BREMERHAVEN USE OF SLUDGE AS A CONSTRUCTION MATERIAL  
Hans Nickels, Dirk Lesemann, Kai Petereit, Dr. Stefan Woltering, Christoph Tarras and Klaus Waßmuth

Session 15: August 25 (Tuesday); 13:30 - 15:00

STATE OF THE ART OF HANDLING AND STORAGE SYSTEMS ON CONTAINER TERMINALS  
Bärbel Koppe and Birgitt Brinkmann

DESIGN CONCEPTS FOR QUAY WALLS FOR LARGE VESSELS  
Werner Richwien

STABILITY ANALYSIS FOR BUCKET FOUNDATION BREAKWATER WITH FINITE ELEMENT METHOD  
Yuan-Zhan Wang and Xiao Zhong

WAVE PROTECTION FOR SMALL HARBOURS  
Peter Fröhlke

Topic 2
SEDIMENT TRANSPORT AND MORPHODYNAMICS

Session 2: August 25 (Monday); 13:30h-15:00h

TIDE HARMONIC ANALYSIS AND SUSPENDED SEDIMENT CARRYING CAPACITY MODELING IN JIANGSU RADIA SANDS SEA AREA  
Dean Wu, Yixin Yan and Rui Xie

STUDY THE MIGRATION OF THE TIDAL LIMIT AND THE TIDAL CURRENT LIMIT OF THE YANGTZE RIVER UNDER ITS EXTREME HIGH AND LOWER RUNOFF  
Hongyan Shen, Jianyong Li, Shichang Yan

COUPLED SEDIMENT AND WAVE MODELING – A MORPHODYNAMIC-NUMERICAL-SIMULATION OF THE PARANAGUÁ BAY  
Jan-Gregor Dahlem, Aron Roland, Ulrich Zanke and Peter Mewis

FLOW AND MORPHODYNAMICS SIMULATION IN YANGTZE ESTUARY USING TIMOR3  
Xiaoyan Zhou, Ulrich Zanke and Yixin Yan

Session 5: August 25 (Monday); 15:30h-17:00h

STUDY ON MECHANISM OF WATER AND THE NUMERICAL SIMULATION OF THE TRANSPORT OF SPOILED DREDGE SOILS BY TIDES  
Wenjie Xin and Jie He

ANALYSIS OF POTENTIAL LONG SHORE SEDIMENT TRANSPORT AT THE COAST OF MECKLENBURG-VORPOMMERN  
Peter Fröhlle and Steffl Dimke

MORPHODYNAMICS OF WADDEN SEA AREAS – MEASUREMENTS AND MODELING  
Nicole von Liebermann and Thorsten Albers

NUMERICAL COMPUTATION OF NEARSHORE MORPHODYNAMICS  
Peter Mewis
Session 8: August 26 (Tuesday); 8:30h-10:00h

**Siltation Mitigation Measures for Wuzhang River Downstream Yanguan Lock**
Dongmei Ma, Weitao Zhong, Shujuan Wang, Guoping Chen and Anzhong Li

**Behaviour of Tidal Dunes and Development of Maintenance Work**
Horst Nasner

**Application of Coherens-Sed in Modeling of Contaminant Transport of Yangpu Bay**
Bingchen Liang, Huajun Li and Aiqun Wang

**Multiple Time-scale Analysis on Flow and Sediment of Yangtze River into the Sea**
Chaofeng Tong, Zhiyi Lei, Yixin Yan and Jianyong Li

Session 12: August 26 (Tuesday); 10:30-12:00

**Measurement of Developing Scour Holes in Gravel**
Reda Diab, Oscar Link and Ulrich Zanke

**Secular Changes in Yearly Minimum Flows from the Upper Yangtze River, China, Since 1882**
Xiqing Chen, Yixin Yan, Zhiyao Song, Chaofeng Tong, Jinhai Zheng and Xiping Dou

**On the Gravitational Effects Induced by Transverse Sloping Beds**
Jens-Uwe Wiesemann, Peter Mewis and Ulrich C. E. Zanke

**Hydrodynamic Impact Study of Regulation Work in Tong’an Bay**
Dongsheng Yu, Jinyan Yang and Haifeng Zhang

**Topic 3**

**Coastal Risks and Sustainable Development**

Session 10: August 26 (Tuesday); 8:30h-10:00h

**Integrated Coastal Zone Management in Germany and the Central Role of Coastal Engineering**
Volker Barthel

**Impact of Sea-level Rise on Chiayi Coast**
Wen-Juinn Chen

**Risk Assessment for Coastal Lowlands in Lower Saxony**
Frank Thorenz and Sandra Burg

**The CoastDat Data Set and Its Potential for Coastal and Offshore Applications**
Ralf Weisse, Heinz Günther, Ulrich Callies, Hans von Storch, Frauke Feser, Katja Woth, Iris Grabemann, Alena Chrastansky and Andreas Plüß

Session 14 August 26 (Tuesday); 13:30h-15:00h

**Research on Evaluation System and Key Technology of the Wetlands Evolution and Degeneration in Large River Mouth in China**
Yixin Yan, DeAn Wu, JinHai Zheng, XiQing Chen and ChaoFeng Tong

**Ocean Thermal Energy Conversion-The Most Important Renewable Energy in the World**
Nai-Kuang Liang

**Experimental Study on Flexible Blade Turbine Driven by Tidal Current Energy**
Shujie Wang, Lanzhuan Lu, Dong Li, Zhongde Shan and Longwu Zhao

**Automatic Stationary Target Identification and Analysis in Side-scan Sonar Imagery**
Wen-Miin Tian and Meng-Wei Guo
Session 18: August 26 (Tuesday); 15:30-17:00

ICE CONDITIONS AND ICE FORCES  
Dirk Carstensen

SUSTAINABLE PORT DEVELOPMENT CONTAINER TERMINALS IN BREMERHAVEN  
Ulrich Filbrandt

THE MECHANISM RESEARCH ON THE HARMONIOUS DEVELOPMENT OF REGIONAL PORT AND ECONOMY BASED ON SYSTEM DYNAMICS - THE CASE OF FUJIAN PROVINCE  
Xue-Jun Feng and Xiao-dong Qi

TOPIC 4
PROPERTIES, DYNAMICS AND TREATMENT OF FLUID MUD IN RIVERS AND ESTUARIES

Session 16: August 26 (Tuesday); 13.30-15:00

OCCURRENCE, BEHAVIOUR AND PHYSICAL PROPERTIES OF FLUID MUD  
Christine Habermann and Andreas Wurpts

MICROBIOLOGICAL IMPACT ON FORMATION AND RHEOLOGICAL PROPERTIES OF FLUID MUD  
Norbert Greiser and Rewert Wurpts

GROUPING OF SUSPENDED MATTER IN TIDAL CURRENTS  
Christian Winter and David Katoshevski

MODELLING OF ESTUARINE FLUID MUD EVOLUTION IN TROUGHS OF LARGE SUBAQUEOUS DUNE  
Li Wang, Christian Winter, Kerstin Schrottke, Dierk Hebbeln and Alexander Bartholomä

MONITORING AND DREDGING TECHNOLOGY IN MUDDY LAYERS  
Rewert Wurpts and Norbert Greiser

TOPIC 5
WAVE THEORY AND MODELLING, WAVES ON STRUCTURES

Session 3: August 25 (Monday); 13:30-15:00

NUMERICAL STUDIES OF TYphoon-INDUCED STORM SURGE USING POM AND FINITE ELEMENT DEPTH-AVERAGEd MODEL IN TAIWAN  
Shan-Hwei Ou, Jian-Ming Liau, Chin-Yen Tsai and Tai-Wen Hsu

WAVE FORECAST SYSTEM OF HUALIEN HARBOUR  
Jaw-Guei Lin, Yung-Fang Chiu and Wen-Kai Weng

MODELING THE FLOWS AROUND TAIWAN  
Jason, C.S. Yu, H.C. Yu and C.J. Chiang

INCORPORATION OF SURFACE ROLLERS IN MODELING WAVE-DRIVEN COASTAL CURRENTS  
Jin-Hai Zheng, Chen-Ming Zhang and Hajime Mase
Session 6: August 25 (Monday); 15:30h-17:00h

**Vibrations of a Horizontal Deck Due to Extreme Wave Impact**
Wojciech Sulisz and Maciej Paprota

**Velocity Field Under Propagating Waves Over a Submerged Horizontal Plate and Induced Forces**
Arndt Hildebrandt and Torsten Schlurmann

**Analysis of Hydro-elastic Responses of Very Large Floating Structure by Use of Sandwich Grillage Model**
Jin-Zhi Hu, Shu-Hua Zhang, Wen-Qi Yu and Bao Zhang

**Study on Mechanism of Breaking Wave Loads on Vertical Walls**
Haigui Kang, Yingwei Sun and Xiaoting Qu

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Session 9: August 26 (Tuesday); 8:30h-10:00h

**Determination of Wave Overtopping Using Neural Network**
Ching-Piao Tsai, Karl-Friedrich Daemrich and Chuen-Lin Ho

**The Influence of Angle of Incident Wave on Irregular Wave Overtopping**
Shichang Yan, Guoping Chen, Jia Chen and Wenwen Ji

**Study of Wave Group Velocity Calculation from Nonhomogeneous Wave Field by Spatio-temporal Wavelet Transform**
Li-Chung Wu, Lawrence Zsu Hsin Chuang, Chia Chuen Kao and Dong-Jiing Doong

**An Observed Extreme Large Wave**
Dong-Jiing Doong Chia Chuen Kao Paul C. Liu and Hsuan S. Chen

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Session 13: August 26 (Tuesday); 10:30h-12:00h

**An Application of Miles’ Theory to Bragg Scattering of Water Waves by Multiplely Composite Artificial Bars**
Swan-Kwang Wang, Tai-Wen Hsu, Li-Hung Tsai and Shan-Hwei Ou

**How Non-linear are Linear Waves?**
Karl-Friedrich Daemrich and Stefan Woltering

**Time-domain Simulation of the Wave-current Diffraction from 3D Body**
Zhen Liu, Ying Gou and Bin Teng

**A Study in Wave pass around Cylinders by Boussinesq Equations**
Ming-Chung Lin and Chao-Min Hsu

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Session 17: August 26 (Tuesday); 13:30h-15:00h

**Spectral Wave Dissipation Based on Observations: A Global Validation**
Fabrice Ardhuin, Fabrice Collard, Bertrand Chapron, Pierre Queffelec, Jean-François Filipot and Mathieu Hamon

**Wave Period Forecasting and Hindcasting – Investigations for the Improvement of Numerical Models –**
Christian Schlamkow and Peter Fröhle

**Physical Processes in a Tidal Inlet**
Gerbrant Ph. van Vledder

**Application of the SWAN Model and the WWM for the Case of Wave Refraction over a Continental Shelf**
Aron Roland
Session 21: August 26 (Tuesday); 15:30h-17:00h

**MULTI CROSS-CORRELATION METHOD IN PARTICLE IMAGE VELOCIMETRY**  
Chih-Yung Shin, Tai-Wen Hsu and Shan-Hwei Ou

**OVERALL STRUCTURAL STRENGTH ANALYSIS OF THE CELL SPAR PLATFORM**  
Gangjun Zhai, Kai Qi and Haigui Kang

**THE DETERMINATION OF THE DESIGN WAVE ELEMENTS UPON THE COMPLICATED UNDERWATER TOPOGRAPHY**  
Weibing Feng and Ling Shi

**TOPIC 6**

**RIVER HYDRAULICS, RIVER ENGINEERING PROJECTS, AND HYDRAULIC STRUCTURES**

Session 21: August 26 (Tuesday); 15:30-17:00

**RIVERBANK EROSION ON THE LOWER BRAHMAPUTRA IN INDIA AND BANGLADESH PREDICTION AND PROTECTION.**  
Hartmut Bruehl

**REGIONAL DEVELOPMENT PROJECT “NEW WALLENSTEIN – WATERWAY”**  
Axel Höhn, Sören Kohlhase and Frank Weichbrodt

**ANALYSING THE RESISTANCE OF DIKES AGAINST EROSION DURING DIKE OVERFLOW**  
Tobias Kubetzek, Hendrik Ramm Jesper Steuernagel, Jens-Uwe Wiesemann, Nicole Saenger and Ulrich Zanke

**OVERVIEW OVER DIFFERENT TECHNICAL METHODS TO PROVIDE FLOOD PROTECTION CURRENT PROJECTS AT THE RIVERS RHINE AND MAIN**  
Jesper Steuernagel

**Additional remarks:**

*The presentation time has been extendet to 20 min. We can have more relaxing talks, longer discussion and must not speak so fast ...*
LOCAL ORGANIZATION:

Gregor Dahlem, Reda Diab, Tobias Kubetzek, Peter Mewis, Aron Roland, Nicole Saenger, Silke Schneider, Jens-Uwe Wiesemann, Andreas Wurpts, Ulrich Zanke and Xiaoyan Zhou.

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