



Conference Programme

ICEBREAKER – Sunday 31 March 2019

18:00- 20:00 Icebreaker and registration
At Haus der Wissenschaft, Sandstraße 4/5, 28195 Bremen

SCIENTIFIC PROGRAMME - Monday 1 April 2019

08:30-09:30 Registration & poster set up
At Haus der Wissenschaft, Sandstraße 4/5, 28195 Bremen

09:30-09:40 Welcome by organisers
Alice Lefebvre & Christian Winter

09:40-10:20 Keynote
Presented by Marius Becker
Assoc. Prof. Dr. Pieter Roos - On the crest of sandwave modelling.
Achievements from the past, directions for the future

10:20-10:30 1-min poster presentation

Valérie Bellec - Sandwaves and megaripples on Spitsbergenbanken, Barents Sea
Mariana T.C. Parda - Occurrence of tidal sand waves in a Brazilian coastal bay: the Sepetiba case
Thierry Garlan - Biennial Survey method of marine dunes in the French part of the North Sea shipping channel
Knut Krämer - Long-term dune dynamics in the Lower Weser Estuary
Gerald Herrling - Parametrization of bedform induced hydraulic flow resistance in coastal-scale numerical models – an evaluation of Van Rijn’s empirical bedform roughness predictors
Wessel M. van der Sande - Investigating idealized modelling of estuarine sand waves
Abdel Nnafie - Modelling the impact of a time-varying wave angle on the nonlinear evolution of sand bars
Wouter de Weger - Ancient deep-water sand dunes – case study from upper Miocene outcrops in the southern Riffian Corridor, Morocco.

10:30-11:00 Coffee break and poster session

- 11:00-12:30 **Session 1: Progress in sand waves research**
 Chaired by Ruth Dúran and Gerald Herrling
- 11:00-11:20 **Geert Campmans** - Storm influences on sand wave dynamics: an idealized modelling approach
- 11:20-11:40 **Johan H. Damveld** - Phase-related patterns of tidal sand waves and benthic organisms: field observations and idealised modelling
- 11:40-12:00 **Thaiëne A.G.P. Van Dijk** - Environmental controls on the spatial variation in sand wave morphology and dynamics on the Netherlands Continental Shelf
- 12:00-12:20 **Thomas van Veelen** - On shapes and breaks: modelling the transient evolution of tidal sandbanks
- 12:20-12:30 **Janneke Krabbendam** - Modelling the past evolution of observed tidal sand waves: the role of boundary conditions
- 12:30-12:40 **Presentation of Journal of Geophysical Research – Earth Surface**
 By A.J.F. (Ton) Hoitink, Editor of JGR-Earth Surface
- 12:40-14:00 **Lunch break and poster session**
- 14:00-14:40 **Keynote**
 Presented by Christian Winter
Prof. Dr. Dan Parsons - Enigmatic Bedforms in the Deep Sea
- 14:40-15:40 **Session 2: Theories and concepts**
 Chaired by Sabrina Homrani and Maarten Kleinhans
- 14:40-15:00 **Burghard W. Flemming** - Ripples and dunes: do flumes tell the whole story?
- 15:00-15:20 **Marius Becker** - Flow over dunes and its influence on fluid mud entrainment: A concept of the dune-mud transition in tide-controlled, coastal plain estuaries
- 15:20-15:40 **Ronald R. Gutierrez** - Towards open access of bed forms data, standardization of its analysis, and some steps to these ends
- 15:40-16:10 **Coffee and poster session**
- 16:10-17:30 **Session 3: Methodological advances**
 Chaired by Débora Koller and Jim Best
- 16:10-16:30 **Suleyman Naqshband** - Observations of low-angle dunes under shallow flow
- 16:30-16:50 **Maarten G. Kleinhans** - Tidal flats, megaripples and marsh: automated recognition on aerial images
- 16:50-17:10 **Till Branß** - Estimation of bedload by tracking supply-limited bedforms
- 17:10-17:20 **Lars Kint** - Multi-scale analysis of sandbank features optimising geomorphological mapping of sandy shelf environments: Belgian part of the North Sea
- 17:20-17:30 **Li Wang** - A combined method of 2-D submarine superposed dune morphological parameters calculation
- 18:00-19:00 **Visit MARUM – Center for Marine Environmental Sciences**
MARUM, Leobener Str. 8, 28359 Bremen

SCIENTIFIC PROGRAMME - Tuesday 2 April 2019

08:30-09:10	Keynote Presented by Burg Flemming Prof. Dr. Cheng Heqin - Dune dynamics in coarse silt, sand and gravel along the main channel from the estuarine front of the Yangtze River to the Three Gorges Dam.
09:10-10:20	Session 4: Geomorphological evolution in tidal environments Chaired by Suzanne Hulsher and Nathaniel Bristow
09:10-09:20	Sabrina Homrani - Multi time-scale morphological evolution of a shell sand, dune bank in a shallow mesotidal environment.
09:20-09:30	Laura Brakenhoff - Spatio-temporal bedform patterns on an ebb-tidal delta
09:30-09:40	Giuliana A. Díaz Mendoza - Seabed features on Mecklenburg Bight based on Side-Scan Sonar imagery
09:40-10:00	Elda Miramontes - Upslope migrating sand dunes in the upper slope of the Mozambican margin (SW Indian Ocean)
10:00-10:20	Ruth Durán - Evolution of offshore sand ridges in tideless continental shelves (Western Mediterranean)
10:20-10:30	1-min poster presentation Christopher A. Unsworth - Testing the state of bedform equilibrium using MBES data from the Mekong River, Cambodia Ye Chen - The influence and interactions of delta slopes and knickpoints on bedforms within submarine channel systems Arnoud Slotman - Build-up-and-fill structure: The depositional signature of strongly aggradational chute-and-pool bedforms Jules Le Guern - Influence of migrating bars on dune geometry Jörg Lang - Bedform successions formed by submerged plane-wall jet flows Judith Y. Poelman - Improved quantification of sediment transport in lowland rivers Ellynn Bouvet (presented by Olivier Blanpain) - Experimental study of ripple dimensions under steady current
10:30-11:00	Coffee break and poster session
11:00-12:50	Session 5: Bedforms in unidirectional flow Chaired by Judith Poelman and Nathan Terseleer
11:00-11:20	Julia Cisneros - Dune morphology and hysteresis in alluvial channels during long-duration floods revealed using high-temporal resolution MBES bathymetry
11:20-11:40	Timo V. de Ruijscher - Spatial lag effects for dunes migrating over forced bars
11:40-12:00	Xuxu Wu - Near-bed turbulence dynamics and suspended sediment transport over mixed sand-clay substrates
12:00-12:20	Gaetano Porcile - Supply limited fluvial dunes
12:20-12:40	Alice Lefebvre - Three-dimensional flow above a natural bedform field
12:40-12:50	Nathaniel R. Bristow - PIV measurements of flow around interacting barchan dunes in a refractive index matched flume

12:50-14:00 Lunch break and poster session

14:00-15:00 Session 6: Environmental management
Chaired by Elda Miramontes and Knut Krämer

14:00-14:20 **Amelia J. Couldrey** - Barchan vs Monopile: what happens when a barchan dune finds an obstacle in its path?

14:20-14:30 **Matthijs R.A. Gensen** - River dune based roughness uncertainty for the Dutch Rhine branches

14:30-14:40 **Leon Scheiber** - Potential drivers for primary dune growth in the Outer Jade

14:40-14:50 **Nathalie Debese** - Osculatory surfaces applied to systematic errors estimation in repeated MBES surveys

14:50-15:00 **Nathan Terseleer** - Automated estimation of seabed morphodynamic parameters

15:00-15:10 Awards
Presented by Alice Lefebvre & Christian Winter

15:10-15:25 Future of MARID
Thierry Garlan

15:25-15:30 Closing words by organisers
Alice Lefebvre & Christian Winter

15:30-16:00 Coffee Break

16:30-18:30 Bedforms-ATM course
By Ronald R. Gutierrez
MARUM, Leobener Str. 8, 28359 Bremen

19:00-23:00 Conference dinner
Bremer Ratskeller, Am Markt, 28195 Bremen

FIELD TRIP - Wednesday 3 April

09:00-17:00 Excursion

09:00 Meeting in Wachtstraße, close to the Radisson Blue Hoteö

10:30-12:30 Visit of Jade Bay tidal flats and dikes in Dangast

13:30-17:00 Cruise on MS Senator

17:00 Back in Bremen