

**PROGRAM : MARID, April 2-5 2023, RENNES****Sunday April 2 Evening** (*Café des Champs libres, Rennes downtown*)**6.30pm-8.30pm** **Welcome drink and Registration****Color code**

Keynote (35 mn + 10 mn for questions)

Long presentation (15 mn + 5 mn for questions)

Short presentation (7mn + 3 mn for questions)

**Monday April 3 Morning** (*PNRB Hall, Campus Beaulieu, Université Rennes*)**8.15am-8.45am** **Coffee and Registration****8.45am-9.00am** **Opening Session****Session I : Field measurements****9am-9.45am** **Vera Van Lancker** **Tracking the human influence on the modern sedimentary system of the North Sea****9.45am-10.05am** **Becker Marius**

Dune orientation controlled by estuarine circulation in the outer Weser estuary, German Bight, North Sea

**10.05am-10.25am** **Van Dijk Thaiëne**

Dune preservation in the River Waal, Netherlands: sediment storage and microplastics distribution over time

**10.25am-10.35am** **Scheiber Leon**

The influence of geometric definitions on dune characteristics

**10.35am-11.00am** **Coffee Break****11.00am-11.20am** **Robert Alexandre**

How it works: benthic ecosystem functioning of submarine sand dunes, from traits-based diversity to isotopic diversity

**11.20am-11.30am** **Krämer Knut**

Bedform transition related to sediment supply and transport capacity in the SW Baltic

**11.30am-11.40am** **Casalbore Daniele**

Crescent-shaped bedforms on submarine volcanic flanks : the case of Salina

**11.40am-11.50am** **Cassol Willian**

The influence of underwater dunes in the spatio-temporal presentation analysis of the hydrodynamic of the Saint-Lawrence River

**11.50am-12.10am** **Poster flash presentation****12.30am-1.30pm** **Lunch****Monday April 3 Afternoon** (*PNRB Hall, Campus Beaulieu, Université Rennes*)**Session I : Field measurements****1.50pm-2.10pm** **Louge Michel**

Aeolian transport thresholds, shear velocity and roughness evolution on a barchan dune - how dune skewness causes an anomaly at the brink

**2.10pm-2.20pm** **Plancke Yves**

The residual sand and mud transport in the Schelde-estuarium, based on the calculation of the sediment balance

**2.20pm-2.30pm** **Roche Marc**

Multi-beam echosounder backscatter strength signature of dune files in the belgian part of the north sea

**2.30pm-2.40pm** **Damveld Johan**

Episodical sand wave migration: analysis of high tempresentation resolution bathymetry

**2.40pm-3.00pm** **Daguinos Paul**

Morphodynamics of submarines dunes superimposed on sand banks in a shallow macro-tidal environment, the example of the Haut Fond de Ouessant

**Poster Session I****3 00pm-4.30pm** **Poster + Coffee Break****4.30pm-4.50pm** **Zomer Judith** (Recorded presentation)

Interaction between two scales of fluvial bedforms and its impact on sediment transport dynamics

**4.50pm-5.00pm** **De Lange Sjoukje**

Spatial variability in dune morphology is driven by local flow patterns

**5.00pm-5.10pm** **Winter Christian**

Sedimentology of a relict bedform field in the Fehmarn Belt, Baltic Sea

**Session II : Renewable Marine Energy****5.10pm-5.30pm** **Unsworth Chris**

Offshore renewable infrastructure in a field of dunes – changes to near bed turbulence and suspended sediment.

**5.30pm-5.40pm** **Van Landeghem Katrien**

What are the ecological implications of bedforms and accelerated seabed mobility around offshore windfarms?

**5.40am-5.50am** **Antoine Morvan**

Potential thermal impact of wind famrs within a dynamic seabed

**Tuesday April 4 Morning** (PNRB Hall, Campus Beaulieu, Université Rennes)

**Session III : Theoretical Modelling**

**8.30am-9.15am** Bruno Andreotti **A unified model of bedforms across the turbulent roughening transition**

**9.15am-9.35am** Narteau Clement

Coexistence of two dune growth mechanisms

**9.35am-9.55am** Claudin Philippe

Hydrodynamical regimes in turbulent flows over a wavy surface and dissolution instability

**9.55am-10.05am** Kearney William

The Naval Seafloor Evolution Architecture: a platform for predicting dynamic seafloor roughness

**10.05am-10.30am** Coffee Break

**10.30am-10.50am** Lefebvre Alice

What is a dune? Towards a homogenization of the nomenclature of bedforms

**10.50am-11.10am** Reesink Arnold Jan H

What is the representative elementary volume of preserved dune deposits?

**Session IV : Numerical modelling**

**11.10am-11.30am** Overes Pauline

Exploring the main drivers of sand wave dynamics

**11.30am-11.40am** Van Der Sande Wessel

Nonlinear modeling of estuarine sand dunes

**11.40am-11.50am** Chauchat Julien

A numerical study on ripple evolution and migration using a two phase flow model

**11.50am-12.00am** Nnafie Abdel

Modelling effects of shoreface-connected sand ridges on the shoreline evolution : Application to the Belgium coast

**12.30am-1.30pm** Lunch

**Tuesday April 4 Afternoon** (PNRB Hall, Campus Beaulieu, Université Rennes)

**Session IV : Numerical modelling**

**1.50pm-2.10pm** Gilletta Alban

Hydrodynamic simulations of flow around a pile using turbulence-resolving models

**2.10pm-2.20pm** Mathieu Antoine

Simulation of bedform formation using an Eulerian two-phase flow model

**2.20pm-2.30pm** Lokin Lieke

The influence of sediment transport formulas on modelling river dune development

**2.30pm-2.40pm** Durand Noemie

Modelling the evolution of marine dunes in a shallow shelf sea

**2.40pm-3.00pm** Pieter Roos

On Elevation and Migration: a Model for Sandbank Dynamics in Sediment-scarce Seas

**Poster Session II**

**3.00pm-4.00pm** Poster + Coffee Break

**Session V : Laboratory experiments**

**4.00pm-4.45pm** Nathalie Vriend **Bedform dynamics: interaction, attraction and repulsion of dunes**

**4.45pm-5.05pm** Vah Mélanie

Bedload quantification by passive acoustic measurement: case of an isolated dune

**5.05pm-5.25pm** Wu Xuxu

Clay winnowing associated with wave-current ripple dynamics on cohesive sand-clay beds

**5.25pm-5.35pm** Frank-Gilchrist Donya

Vortex Trapping of Sand Grains over Ripples Under Oscillatory Flow

**5.35pm-6.00pm** Closing Session

**8.00pm-10.00pm** Gala dinner

(Restaurant « La Closerie », Rennes Downtown)

**Wednesday April 5**

**8.00am-5.30pm** Field excursion

(Departure from PNRB Hall, Campus Beaulieu)

**Poster list****1. Abroug Iskander**

Influence of short-period irregular waves on the morphology and dynamics of subaqueous dunes generated under unidirectional flows

**2. Bennis Anne-Claire**

MORPHODUNES : a new project dedicated to the morphodynamics of sand dunes to build a new numerical tool

**3. Bobiles Kevin**

Characterisation of flow dynamics over estuarine

**4. Daguiños Paul**

Morphological and architectural variability of marine sand banks on a macro tidal dispersive shelf

**5. Daynac Jimmy**

Deep Learning : A new tool for mapping and analysis fields of dunes (ex : Rub'Al Khali sand sea)

**6. De Lange Sjoukje**

Influence of silt in sand-silt mixtures on dynamic near-equilibrium bedform geometry

**7. Le Bot Sophie**

Marine dune morphodynamics and associated sedimentary fluxes : Spatio-temporal variability and relations with hydrodynamic forcings

**8. Lefebvre Alice**

The influence of dune lee side shape on flow above bedforms

**9. Michelet Nicolas**

Estimation of marine dunes migration through sediment flux calculation and three-dimensional numerical modelling

**10. Narreau Clement**

Direct validation of dune instability theory

**11. Nexer Maëlle**

How to study marine dunes in an offshore windfarm context

**12. Portos-Amill Laura**

MELODY: Understanding the scale interactions between tidal sand waves and the lower shoreface

**13. Romagnoli Claudia**

Bedforms and morpho-bathymetric evolution of tributary channels in the Po river

**14. Scheiber Leon**

Dune scaling in the Tien River, Vietnamese Mekong Delta

**15. Valance Alexandre**

Morphodynamics of two-dimensional isolated subaqueous dunes