

Wednesday 29 March 2023		
Excursion to Maasvlakte and Springertduinen		
11:45	Meeting at <i>Stevinweg 1, Civil Engineering, Delft University of Technology.</i>	
12:00	Bus departs from Stevinweg 1 car park (see Map p.XX)	
12:45	Excursion Maasvlakte	
14:15	Bus departs for the second excursion stop	
14:45	Excursion Springertduinen	
16:15	Bus return to TUDelft	
17:00	Arrival at <i>Stevinweg 1, Civil Engineering, Delft University of Technology</i>	
Ice-breaker		
20:00 – 22:00	<i>Mooie Boules - Professor Schermerhornstraat 9, 2628 PZ Delft</i>	
Thursday 30 March 2023		
08:30 – 09:15	Registration	
09:15 – 09:30	Opening – <i>Bram van Prooijen</i>	
09:30 – 10:00	Keynote 1: : Incorporating Data Science and Climate in Coastal Engineering <i>Fernando J. Méndez Incera</i> (University of Cantabria)	
10:00 – 11:00	Poster session 1 & Coffee	Page
1	Using Agent-Based modelling to explore human impact on sandy beaches in the Netherlands <i>Elham Bakhshianlamouki</i>	
2	The social response to coastal realignment: results from three project locations in the Southwest delta, the Netherlands <i>Vincent Bax</i>	
3	The role of vegetated intertidal areas for salt intrusion mitigation <i>Jesse Bootsma</i>	
4	A close look at the beach and dune sand for the Vlieland beach nourishment <i>Laura Coumou</i>	
5	Footprint: first results of a three-vessel offshore windfarm sampling campaign <i>Johan Damveld</i>	
6	The effect of sediment grain size on dune erosion: a field experiment <i>Cato de Hullu</i>	
7	Geen Zee Te Hoog: Anticipating for accelerating sea level rise in the spatial design of land-water transitions via a participative design process <i>Jaco de Smit</i>	
8	Connectivity of sand mining regions in San Francisco Bay estimated using SedTRAILS <i>Tim de Wilde</i>	
9	Stochastic results from deterministic wave-resolving models <i>Floris de Wit</i>	

10	Biogeomorphological Evolution of Salt Marshes under Natural Conditions and the Influence of Artificial Structures on Marsh Resilience <i>Sarah Dzimballa</i>	
11	The origin of patterns on tidal flats and their role in marsh expansion <i>Greg Fivash</i>	
12	Lower shoreface sand transport: offshore or onshore? <i>Philippe Frankemolle</i>	
13	Coupled evolution of hydrodynamics and morphology in the western Dutch Wadden Sea <i>Bart Grasmeijer</i>	
14	The influence of bivalve shells on sediment transport: an experimental flume study <i>Steven Haarbosch</i>	
15	Longer-term morphological evolution of the Belgian coast in relation with the nearshore shelf <i>Rik Houthuys</i>	
16	The impact of sea level rise and a changing discharge on salt intrusion in the Rhine Meuse Estuary <i>Ymkje Huisman</i>	
17	How SANDsitive are seafloor animals in the Wadden Sea? Quantifying sandification sensitivity of Wadden Sea benthic communities <i>Tjitske Kooistra</i>	
18	How vegetated foreshores can contribute to limiting dike dimensions of sea dikes: a case study into the assessment and design procedure of including the quantitative effect of the foreshore in the flood defence system <i>Marit Lambers</i>	
19	Predicting morphodynamic long-term changes along the southern Rhode Island, USA, shoreline in the next decades <i>Alexa Leone</i>	
20	Unravelling the drivers of salt marsh cliff initiation <i>Victoria Mason</i>	
21	Key research required for the safety assessment of the Dutch sandy coast <i>Robert McCall</i>	
22	Large scale coastline modelling in Belgium for design and quick assessment of coastline adaptation <i>Marco Moretto</i>	
23	Quantifying erosion of saltmarshes under storm conditions in a Living Dike <i>Jos Muller</i>	
24	Effect of sea level rise and artificial deepening on peak water levels in deep tidal channels <i>Iris Niesten</i>	
25	Millimeter-scale beach topography measured with structure-from motion photogrammetry <i>Daan Poppema</i>	
26	Quantifying the effects of bedforms on basin-scale hydrodynamics <i>Laura Portos Amill</i>	
27	Duration of saltwater intrusion shapes freshwater trees' response to salt stress <i>Eleonora Saccon</i>	
28	Estuarine salt-intrusion affected by changing channel depth and intertidal width <i>Rutger Siemes</i>	

29	Conceptualizing aeolian sediment transport modes in a bio-geomorphological cellular automata model of the beach-dune system <i>Manuel Teixeira Manion</i>	
30	Probabilistic design of green sea dike revetments: required thickness for revetment of local clay <i>Vera van Bergeijk</i>	
31	Seabed sediment: from hand-drawn map to AI-generated model <i>Sytze van Heteren</i>	
32	Multi-annual research program Management and Maintenance of the Dutch Coast <i>Niels Van Kuik</i>	
33	Unravelling sediment deposition in pioneer salt marshes through flume experiments <i>Thomas van Veelen</i>	
34	The method that despises the little is not worthy of the great: Dealing with the patchiness of vegetational effects on large scale flow <i>Nicollete Volp</i>	
35	Field observations of turbulent flow patterns and salinity variations in a stratified scour hole <i>Feteme Ebrahimi Erami</i>	
36	International Guidelines on Natural and Nature-Based Features for Flood Risk Management <i>Quirijn Lodder</i>	
11:00 – 12:30	Session 1: Coastal risk & management	Page
11:00 – 11:12	Integrated coastal management strategy for the Saint-Louis region, Senegal <i>Anouk de Bakker</i>	
11:12 – 11:24	How to explore the solution space of sandy strategies under accelerated sea-level rise <i>Renske de Winter</i>	
11:24 – 11:36	A numerical flume for the pressures on clay erosion profiles for the Wide Green Dike <i>Marisol Irias Mata</i>	
11:36 – 11:48	Simulating impacts of nourishment scenarios on decadal cross-shore dynamics <i>Tosca Kettler</i>	
11:48 – 12:00	International Guidelines on Natural and Nature-Based Features for Flood Risk Management <i>Quirijn Lodder</i>	
12:00 – 12:12	Visualising past landscapes to combat shifting baselines <i>Abigail Schiller</i>	
12:12 – 12:24	Coastal engineering benefits of sand nourishments at the shores of Walcheren (Southwest delta, the Netherlands) <i>Wietse van de Lageweg</i>	
12:30 – 13:15	Lunch	
13:15 – 14:45	Session 2: Estuaries	Page
13:16 – 13:28	Salt intrusion in the Rhine-Meuse Delta under different river discharge scenarios <i>Bouke Biemond</i>	
13:28 – 13:40	Improving morphodynamic modelling using sand-mud interaction and morphologic metrics <i>Ana Colina Alonso</i>	

13:40 – 13:52	Unravelling the morphodynamic and ecological functioning of tidal flats <i>Tim Grandjean</i>	
13:52 – 14:04	Dutch Wadden Sea as an Event-driven System: A Numerical Perspective <i>Aditi Mitra</i>	
14:04 – 14:16	New concept of inlet connectivity helps understand role of tidal divides in double inlet systems <i>Pieter Roos</i>	
14:16 – 14:28	Coastal engineering benefits of sand nourishments at the shores of Walcheren (Southwest delta, the Netherlands) <i>Wietse van de Lageweg</i>	
14:28 – 14:40	What are the causes for the unexpected high dredging volumes in the navigation channel Boontjes in the Wadden Sea? <i>Julia Vroom</i>	
14:40 – 15:15	Coffee break	
15:15 – 16:45	Session 3: Subtidal & Offshore	Page
15:16 – 15:28	Tidal plume fronts and recirculation in the near field Rhine River Plume during typical and extremely low river discharge conditions <i>Julie Pietrzak</i>	
15:28 – 15:40	Spatio-temporal Variability of the Lagrangian Transport in the Dutch Wadden Sea <i>Jeancarlo Fajardo Urbina</i>	
15:40 – 15:52	Influence of SFCR on Longshore Sediment Transport at the Belgian coast <i>Sem Geerts</i>	
15:52 – 16:04	Nearshore bathymetry estimation at Puerto Rico from Sentinel-2 and hyperspectral PRISMA imagery using machine learning <i>David Hartmann</i>	
16:04 – 16:16	What happened to the sandpit <i>Simeon Moons</i>	
16:16 – 16:28	Efficient Modelling of Sand Wave Field Dynamics for Offshore Engineering Activities <i>Pauline Overes</i>	
16:30 – 18:00	Young NCK: Walk and surprise	
18:00	Drinks and Diner at Knus	

Friday 31 March 2023

08:30 – 09:00	Registration	
09:00 – 09:10	Opening – <i>Bram van Prooijen</i>	
09:10 – 09:40	Keynote 2: : Fish Migration River - What happens when a fish ecologist and a civil engineer start talking about a hole in the Afsluitdijk? <i>Wouter van der Heij</i> (Waddenacademie)	
09:40 – 10:45	Poster session 2 & Coffee	Page
1	The importance of 2D effects on dune erosion during the 2022 winter storms at Maasvlakte II <i>Ype Attema</i>	
2	Investigating Hydrogeological Feedback Mechanisms During Artificial Dune Development <i>Jadon Beerlandt</i>	
3	Shoreface-connected sand ridges strongly affect decadal coastline evolution in a coupled shelf-shoreline system forced by waves and tides <i>Jan Boersma</i>	
4	Long-Term Morphological Modelling of Tidal Inlet Systems: Implementing Salt Marshes in ASMITA <i>Marloes Bonenkamp</i>	
5	Initial development of a poorly sorted back-barrier beach nourishment <i>Jorn Bosma</i>	
6	Sand Wing: Feasibility study towards sustainable sandbank maintenance <i>Marcio Boechat Albernaz</i>	
7	Context and framework of the recent and future coastal management toolbox <i>Laura Brakenhoff</i>	
8	Hydraulic load model for the Dutch coast <i>Jochem Caspers</i>	
9	The Power and Limit of Building with Nature for the Venice Community <i>Giovanni Cecconi</i>	
10	SCALDIS COAST: A numerical modelling of 10-year for long-term morphology in the surfzone of the belgian coast using the telemac-mascaret system <i>Bart de Maerschalck</i>	
11	Biophysical Controls on Pollution Flows in Coral Reef MPAs <i>Ibnu Faizal</i>	
12	The response of dominant vegetation species in saltmarsh to changes of inundation frequency	

- Jing Feng*
- 13** Understanding coastal response to sea level rise in Northern Italy: a two-sided approach
Wouter Gerats
- 14** The impact of tidal creeks on the morphology of a tidal flat
Jill Hanssen
- 15** Exploring multimodal wave conditions relevant to coastal processes on the Dutch shoreface
Chris Hoogervorst
- 16** Development of tidal flats under sea level rise
Joanne Jenine Naidoo
- 17** Influence of channel bathymetry on subtidal salt transport processes and salt intrusion in single channel systems
Henk Jongbloed
- 18** Tracing Sand Nourishment Dispersal by Modelling Light Exposure History
Stuart Pearson
- 19** Understanding the Western Wadden Sea in terms of inlet connectivity: an exploratory modelling approach
Wout Ploeg
- 20** Cross-shore Distribution of Alongshore Sediment Transport in a Macro-tidal Environment
Bart Roest
- 21** Modelling salt marsh dynamics for coastal safety by Living Dikes, a research approach
Elien Sipma
- 22** Detecting turbid coastal features with satellite Earth Observation
Juliana Tavora Bertazo Pereira
- 23** Patterned coastal peatland ecosystems facing sea-level rise
Archontoula Valsamidou
- 24** Dissemination of structurally monitored and up-to-date abiotic data in the Wadden Sea through a Digital System Reporting tool
Falco van Bakel
- 25** Connecting dikes and vegetated foreshores at managed realignments
Kim van den Hoven

26	A framework to unify academic and applied approaches in coastal research and engineering <i>Christa van Ijzendoorn</i>	
27	Quantifying complex relations between spit growth and its hydrodynamic drivers, in non-tidal, wind-dominated lake environments. Application to the Marker Wadden <i>Niels van Kouwen</i>	
28	Guano-mediated island genesis in the Dutch Waddensea <i>Floris van Rees</i>	
29	Recreation impact on the establishment of dune building species <i>Sasja van Rosmalen</i>	
30	Coastal Vision: Assessing a long term coastal protection strategy for the Belgian Coast <i>Bart Verheyen</i>	
31	MOZES: Research on the Morphological Interaction between the Sea Bottom and the Belgian Coastline <i>Toon Verwaest</i>	
32	Preliminary analysis of salt intrusion observations during the extreme drought of 2022 <i>Tess Wegman</i>	
33	Pathway analysis to support long-term coastal management <i>Carolien Wegman</i>	
34	A numerical study of aeolian sediment transport affected by moisture, using discrete element modelling <i>Xiuqi Wang</i>	
35	<i>Visual modelling of the development of a managed-realignment project</i> <i>Johan van de Koppel</i>	
10:45 – 12:15	Session 4: Ecology	Page
10:46 – 10:58	Response of dune-building grasses to summer precipitation <i>Jan-Markus Homberger</i>	
10:58 – 11:10	The effect of vegetation, sediment properties and inundation duration on the build-up of soil stability in salt marshes <i>Marte Stoorvogel</i>	
11:10 – 11:22	Optimal wave reflection as a mechanism for seagrass self-organization <i>Roeland van de Vijzel</i>	

11:22 – 11:36	Biocompacting livestock accelerate drowning of tidal salt marshes with sea level rise <i>Marinka van Puijenbroek</i>	
11:36 – 11:48	Preserving estuarine foraging habitats for shorebirds through sand nourishments <i>Brenda Walles</i>	
11:48 – 12:00	Benthic macrofauna under extreme weather events: unraveling the response strategies from individual behavior to community structure in tidal flats <i>Zhengquan Zhou</i>	
12:00 – 12:12	Potential ecosystem effects of large upscaling of offshore wind in the North Sea <i>Luka Jaksic</i>	
12:15 – 13:00	Lunch	
13:00 – 14:30	Session 5: Beaches and Dunes 1	Page
13:00 – 13:12	High-resolution grain size analysis using photos <i>Casper Bakker</i>	
13:12 – 13:24	The effect of brushwood fences and marram grass on initial dune development <i>Jennifer Derijckere</i>	
13:24 – 13:36	Parameter uncertainty in ShorelineS predictions of the Hondsbossche Dunes <i>Anna Kroon</i>	
13:36 – 13:48	Particle motion in the nearshore zone of sandy beaches- quantifying the role of horizontal and vertical processes <i>Emilia Zygarlowska</i>	
13:48 – 14:00	Observations of directional characteristics of infragravity waves in the North Sea <i>Jantien Rutten</i>	
14:00 – 14:12	Sandy beaches in low-energy, non-tidal environments: Beaches of the Markermeer and IJsselmeer <i>Anne Ton</i>	
14:12 – 14:24	Flume modelling to investigate the erosion of sand-mud mixtures under currents and waves in the laboratory and in Delft3D <i>Roy van Weerdenburg</i>	
14:30 – 15:00	Coffee break	
15:00 – 16:00	Session 6: Beaches and Dunes 2	Page

15:00 – 15:12	The development of a three-dimensional idealised model for estuarine hydrodynamics: iFlow3D Marco Rozendaal	
15:12 – 15:24	Shoreline evolution on decadal time scales: role of tides Abdel Nnafie	
15:24 – 15:36	Longshore transport by tides and waves Dano Roelvink	
15:45 – 16:00	Big projects and prizes	
16:00	Closure	