SSP3.5/GM5/HS13: Flow and bedform dynamics on Earth and Mars: current understanding of a complex interplay

Conveners: Anne Baar, Maria Azpiroz-Zabala, Guilhem Amin Douillet, Alice Lefebvre, Thaiënne van Dijk, Francesco Salese Steven Banham

Chat on Friday, 8 May 2020, 08:30–10:15

Start	Title	Presenting author
8:30	Short introduction to the session	
8:33	River dunes under extreme high and low flows: outline of a research project	Lieke Lokin
8:38	Active and fossil aeolian bedforms in Arabia Terra (Mars): climate and sedimentological implications	Simone Silvestro
8:43	Turbidity current signature on consecutive turbidity current: analysis through numerical simulations of multiple consecutive submarine flows	Maria Azpiroz-Zabala
8:48	The influence of gravel mixed with sand on the formation and development of ripples.	Katrien Van Landeghem
8:53	Initiation and flow conditions of contemporary flows in Martian gullies	Tjalling de Haas
8:58	The effects of bedform-related roughness on hydrodynamics and sediment transport patterns in Delft3D	Laura Brakenhoff
9:03	Aggradational Channels on Mars	Joshua Ahmed
9:08	The main types of river channel bedforms movement	Alexei Sidorchuk
9:13	Validation of process-based sand wave models: applying a linear and nonlinear sand wave model to the Netherlands Continental Shelf	Geert Campmans
9:18	Modeling the influence of the gravitational circulation on estuarine sand dunes	Wessel M. van der Sande
9:23	New insights into the internal structure of Turbidite deposits from physical modelling of relevant erosional and depositional processes	Jonathan Wilkin
9:28	A new hypothesis that contributes to the formation of cold sludge volcanoes and fluid outlets in tectonic seabed & terrestrial regions; with its helpful interpretation for time fracture sequence of fault segments	Dursun Acar
9:33	“In situ” characterization of the sedimentary record and structures using Virtual Reality: new insights from the Kimberley outcrop (Gale Crater, Mars)	Gwénaël Caravaca
9:38	Sediment sorting in tidal sand waves fields: the internal structure revealed?	Johan Damveld
9:43	Tidal bedforms dynamics, Weser River, Germany	Alice Lefebvre
9:48	High-frequency Sequence stratigraphy and facies architecture in Cholan Formation (Pleistocene), northwestern Taiwan: the evolution of a foreland basin	Xiao-Cheng Zhu
9:53	The growth process of river dunes	Suleyman Naqshband
9:58	Observations of sediment sorting over rapidly developed marine bedforms, using multibeam backscatter	Thaiënne A.G.P. Van Dijk
10:03	Early and late Holocene paleoenvironmental reconstruction of the Pearl River estuary, South China Sea	Huixian Chen

Abstracts without uploaded material

	Grain size characteristics of surface aeolian sands in the downwind margin of modern Mu Us Sandland	Zhongyuan Wang
	Head-to-head encountering dune-fields under reversing flows in the Beibu Gulf, South China Sea	Xiaochuan Ma
	Braided rivers networks dynamics: analyzing topographic data from a large flume experiment	Daniel Papa
	Controls of channel morphodynamics on the intertidal dune morphodynamics and associated bedload transport in the open-coast macrotidal flats	Joohee Jo
	The internal sedimentary architecture of Terrestrial sinuous ridges: clues to understanding sinuous ridges on Mars	Kartikeya S. Sangwan