Special Issue

Linking Coastal Morphodynamics, Biology and Geochemistry at Multiple Scales

Message from the Guest Editors

Continental margins are constantly changing their morphology due to multi-scale physical and biological interactions that lead to sediment erosion and deposition. Changes in morphology in turn affect the ambient environment; not only physically, but also biogeochemically. Early studies in morphodynamics often only considered physical interactions to the first-order approximation and neglected the effects of biota, even though it is established knowledge that biota actively shape their habitats by altering local sediment properties and landforms. Whether and how small-scale effects of biota accumulate and interactively guide large-scale (kilometer-scale) morphological evolution remains poorly understood. Furthermore, to what extent morphodynamics controls benthic–pelagic coupling and carbon sequestration is still an open question. This Special Issue aims to bring efforts together to address these open questions by exploring the linkages between ecosystem functioning, biogeochemistry, and coastal morphodynamics. We welcome studies based on field observations, lab experiments, machine learning, and numerical modelling.

Guest Editors

Dr. Wenyan Zhang

Dr. Joanna Dudzinska-Nowak

Dr. Tobias Dolch

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Geosciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
geosciences@mdpi.com

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Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherentset of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientificallybased political decisions.
We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Editor-in-Chief

Prof. Dr. John C. Eichelberger
Alaska Center for Energy and Power, University of Alaska Fairbanks, Fairbanks, AK, USA

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