



11th International Conference on Hydrosience & Engineering
"Hydro-Engineering for Environmental Challenges"
September 28th - October 2nd 2014
Hamburg, Germany

Mini-Symposium
Morphodynamics

The main objective of the mini-symposium on sediment transport and morphodynamics is focused on the application of simulation modelling tools in a wide range of real world investigations. This holds especially for engineering applications; the practical aspect is a central theme of the whole conference.

A wide range of morphodynamic applications are requested to participate at this conference, such as

- Rivers:
 - meandering – secondary flow effect - bank stability,
 - embankment stability – armoring of the river bed / sediment supply,
 - impact of groynes (e.g. accumulation and leeward erosion),
 - ripples and river bed variations,
 - morphodynamic design
- Estuaries:
 - dredging and dumping – optimizations,
 - widening and deepening of navigation channels,
 - bank stability – ripples –migrating bedforms,
 - weir – sill optimization reducing upstream sed. transport,
 - harbor siltation,
 - levee stability / breach
- Wadden:
 - gradual rise of the wadden base,
 - dredging,
 - environmental risk assessment of dredging / dumping,
 - effect of tidal networks – morphodynamic controlling
- Coasts:
 - wave effects (e.g. Tombolo effect),
 - groynes,
 - along shore transport,
 - dredging & dumping,
 - near shore sandbars,
 - ripples – wave generated bedforms,
 - tidal inlets
- Biomorphodynamics:
 - intertidal flats,
 - morpho-biological patterns,
 - vegetation influence on morphodynamic stability,
 - biological effect on cohesive / noncohesive sediment,
 - environmental risk assessment of dredging / dumping

Contact:

Dr.-Ing. Andreas Plüß, Federal Waterways Engineering and Research Institute, Hamburg,
andreas.pluess@baw.de