

Impacts of Environmental changes on coastal barrier construction: an approach by physical modelling

Objectives

- Quantify the modification of sediment types on coastal barrier construction (global warming + anthropic activities)
- A better understanding of coarse bioclastic sediment behavior

Field work

- Mont-Saint-Michel Bay, (Veys Bay, west coast in Cotentin)
- Characterization of natural mixed sediments
- Sediment sampling for experiments in lab
- VHR Stratigraphy (GPR)

Lab work

- For different (natural or reconstructed) bioclastic/silicoclastic mixtures (%):
 - ➔ Measurements of velocity profiles (sediment threshold of motion, critical bottom shear stress). Mainly in a small unidirectional current flume
 - ➔ Measurements of sediment settling velocity (sedimentation tube)
 - ➔ Characterization of morphology, particules arrangement and internal structure in a large 'swell + current' flume

