



## **Sandy coast cross-shore profile changes in a high wave energy environment, Palanga, Baltic Sea**

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Understanding changes in the nearshore profile in high but relatively short period wave conditions remain a challenge, particularly where there is considerable alongshore sediment transport. In the light of recent advances, this paper re-analyses nearshore beach profile data from Palanga, Lithuania, showing rates and locations of sediment accumulation/loss across the profile during the beach recovery and subsequent stabilisation following the storm ‘Antoley’ which occurred on 7 December 1999. The inferred sediment transport on different parts of the profile that occurred during this time are compared to a 2 year dataset obtained from regular surveys in 2016 and 2017, that show relatively small but frequent sediment transfers across the profile, but particularly in water depths 6-8m. Cross shore sediment transport and beach profile change are discussed within the context of coastal engineering works, which have seen the removal and subsequent replacement of groynes, and the construction of a new pier.