

# LITPACK

## LITPACK and coastline kinetics

Design and implementation of **efficient coastline management strategies**, locally as well as regionally, require detailed knowledge of the physical processes controlling the transport and sedimentation of beach materials. LITPACK applies a **unique deterministic approach** to give you a powerful tool for a wide range of coastal zone management applications.

### APPLICATIONS

LITPACK is applicable for a wide range of coastal management and optimisation projects.

#### TYPICAL APPLICATIONS

LITPACK is the ideal software for:

- Impact assessment of coastal works on coastline dynamics
- Evaluation of different designs and types of coastal constructions, including groynes, revetments, harbours and breakwaters
- Optimisation of beach redevelopment plans, including artificial nourishment
- Design and evaluation of coastal protection
- Execution of morphological baseline studies. These studies often lead to the definition of more detailed studies undertaken with other tools

### MODULES

LITPACK includes the same well-proven graphical user interface (GUI) as our MIKE 21 and MIKE 3 products.

#### PP - PREPROCESSING AND POSTPROCESSING

LITPACK also utilises the same pre-processing and post-processing (PP) module as MIKE 21 and MIKE 3. This module provides an integrated work environment with convenient and compatible routines. It simplifies the tasks of data input, analysis and presentation of simulation results.

If you already have a MIKE 21 or a MIKE 3 on the same installation, you do not need an additional PP module for LITPACK.

#### THE CORE OF LITPACK: SEDIMENT TRANSPORT MODEL

The core of LITPACK is the sediment transport model - a deterministic description of non-cohesive sediment transport in a single point. For decades, this model has been used and improved and has proven very reliable.

Applying the model in a series of points in a profile and using the actual wave and current climate permit the calculation of the littoral drift and annual net and gross sediment transport. The combination of these data enables modelling and analysis of coastline evolution, including the effects of constructions and other measures on the coastline.

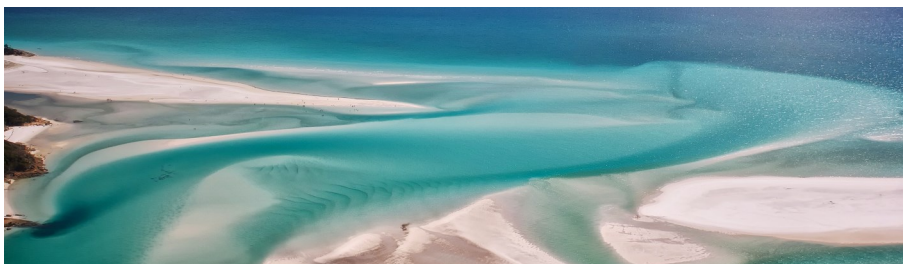
### BENEFITS

LITPACK is proven science turned into a productive tool for coastal engineers.

It combines unique expert knowledge about physical processes within waves, currents and sediment transport with efficient numerical simulation and an efficient user interface. The professional user is able to undertake complex studies in a productive and safe manner.

To facilitate this, LITPACK also contains a series of productivity tools, such as graphical editors and animated presentation of results.

LITPACK simulates a wide range of wave and current scenarios along straight or nearly straight coastlines. It combines these simulations into predictions of coastal profiles and long-term coastline evolution.



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