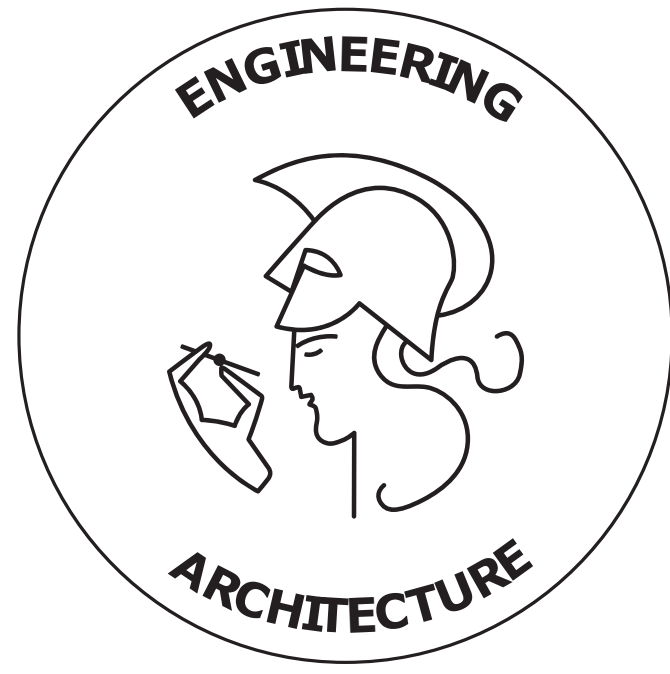


New developments in numerical modelling

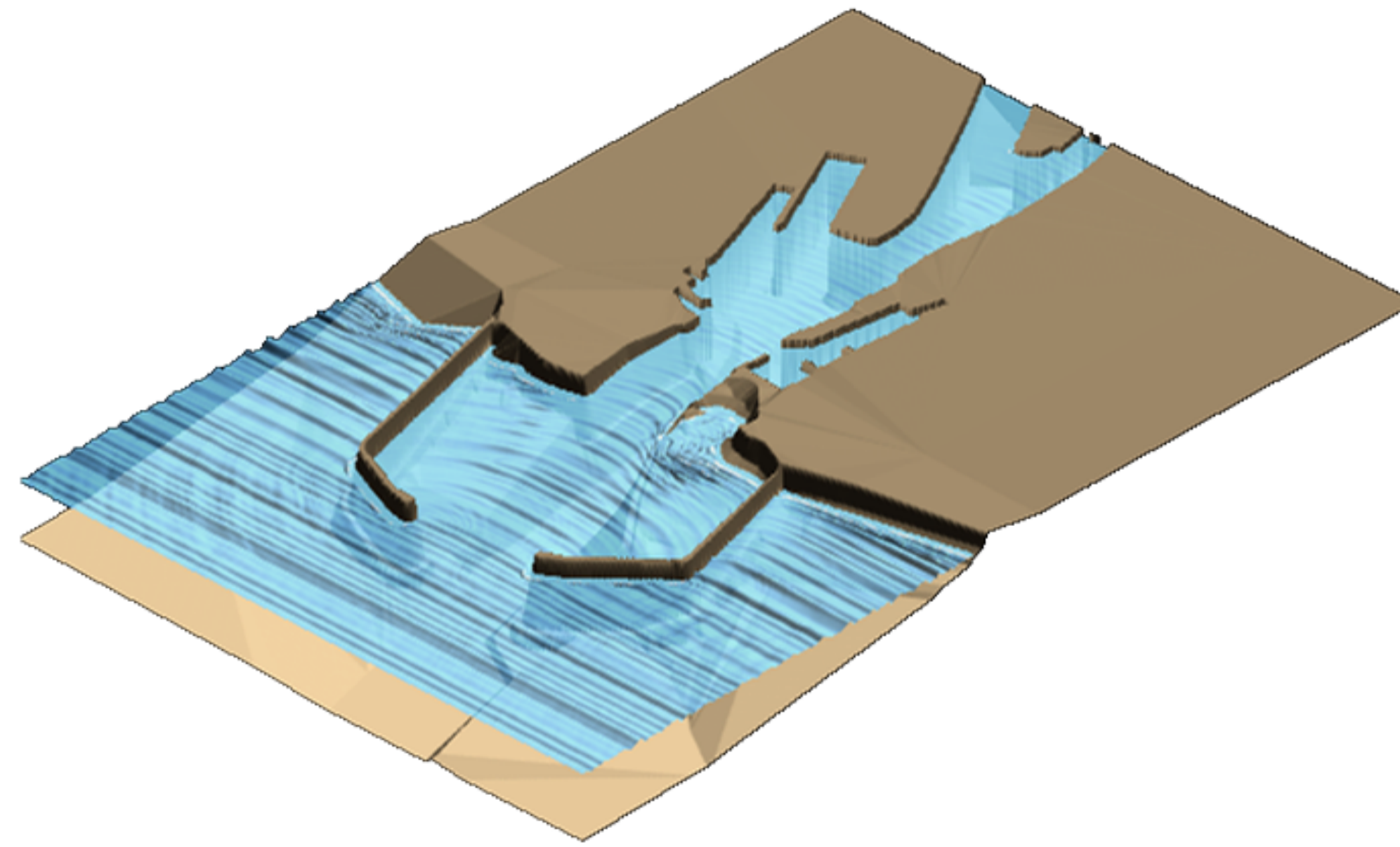
Dept. of Civil Engineering, Ghent University



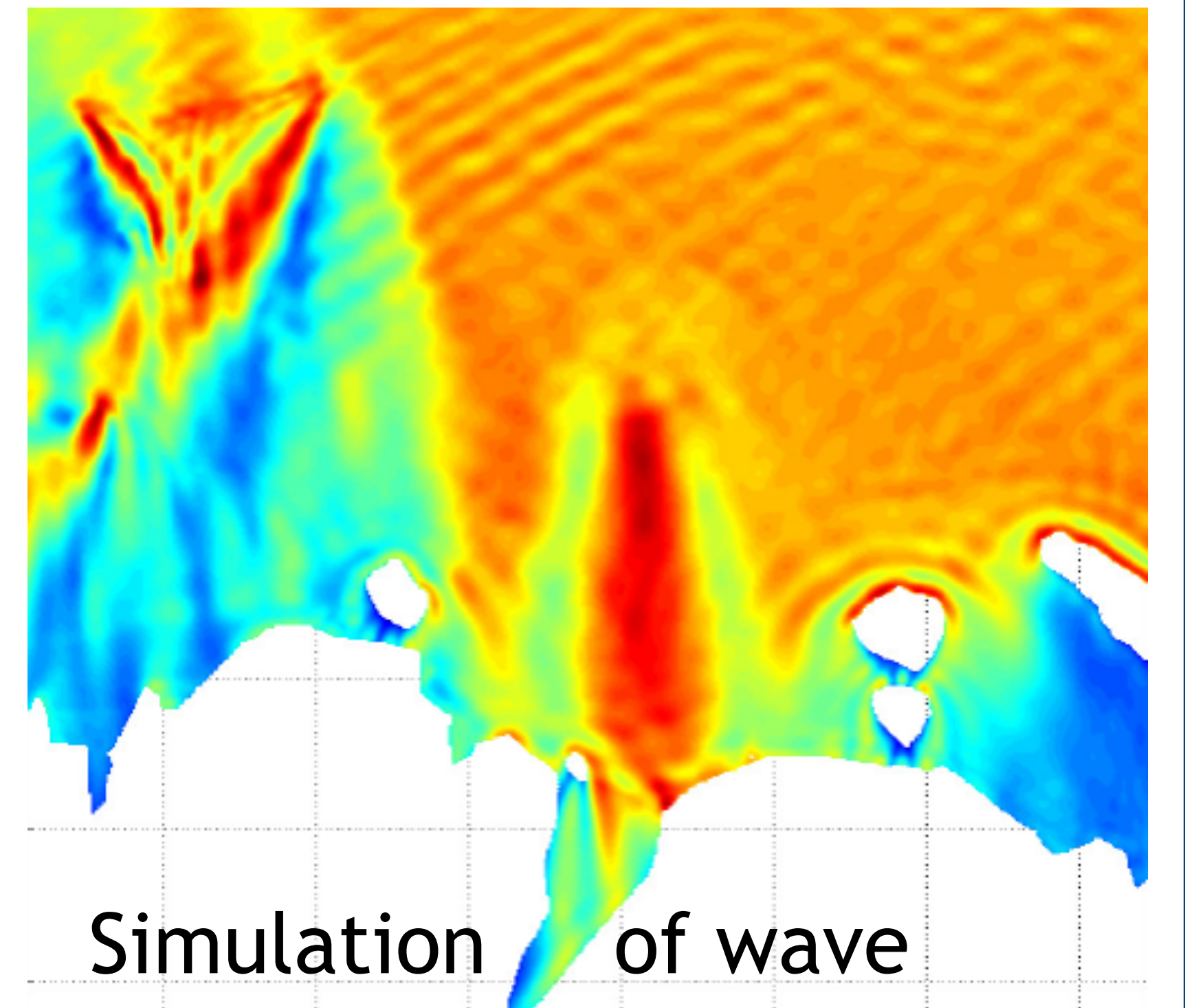
Background

Nowadays, the development of infrastructures on the coast requires a thorough understanding of all the different coastal processes. Numerical modelling is a suitable tool to investigate these physical processes and to deliver valid, accurate and usable solutions.

Wave propagation

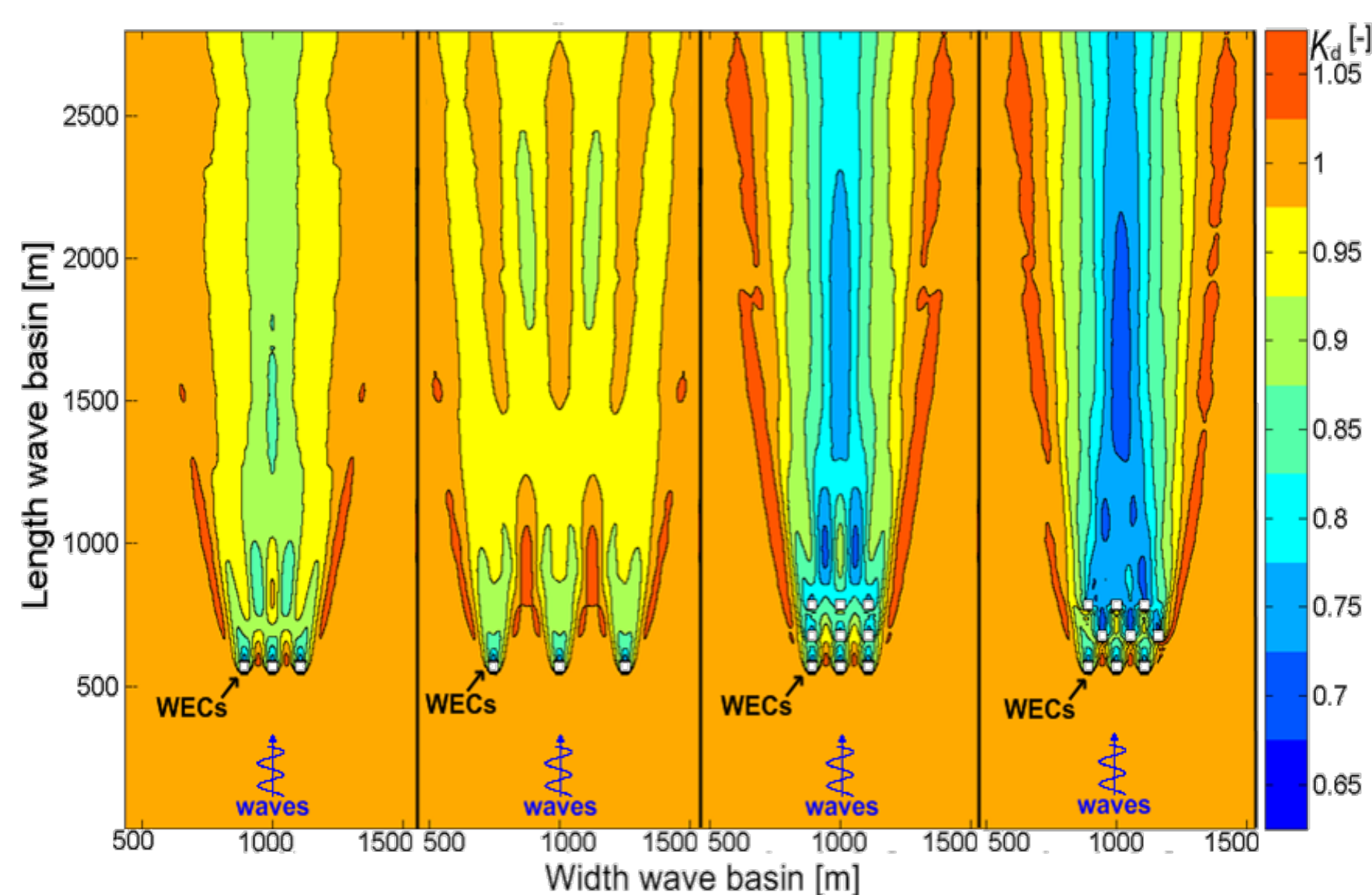


Simulation of wave penetration into the harbour of Ostend using MILDwave

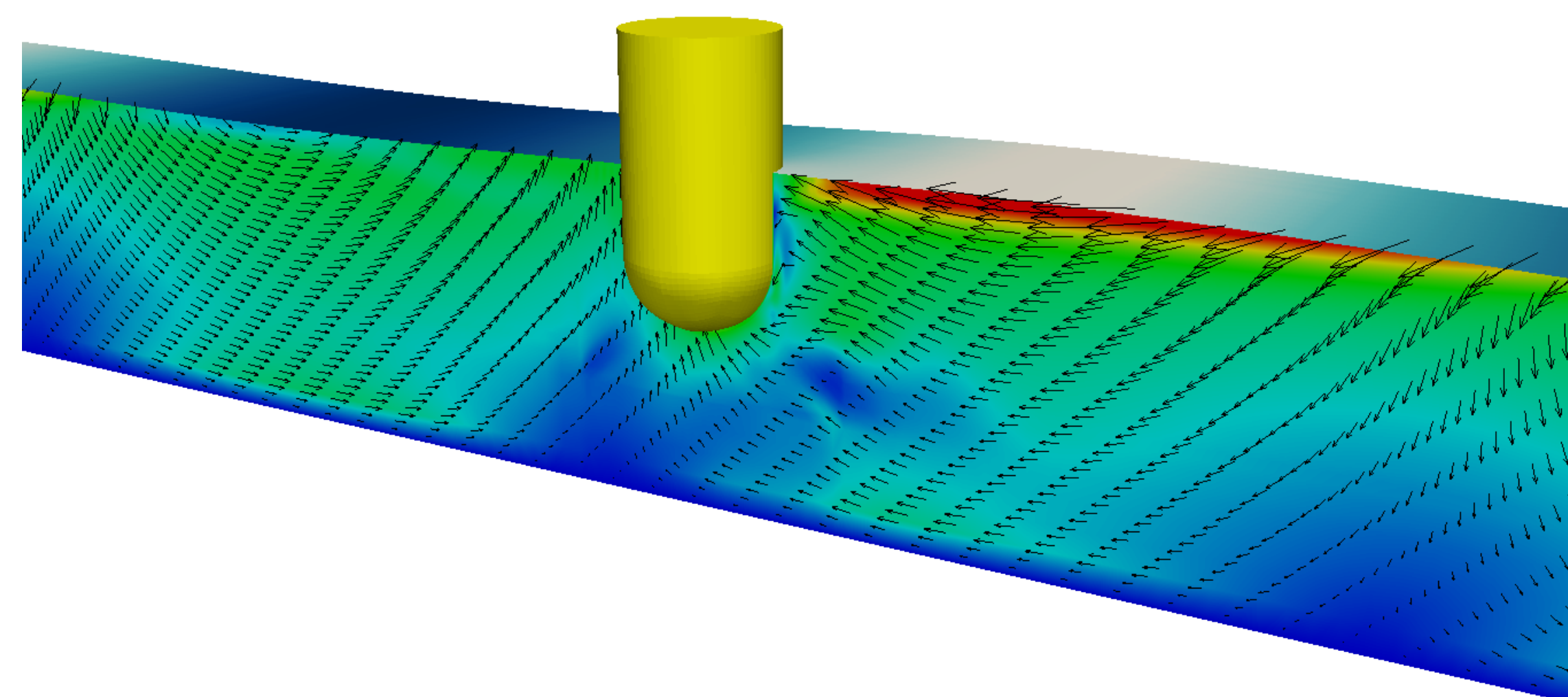


Simulation of wave transformation in a fjord using MILDwave

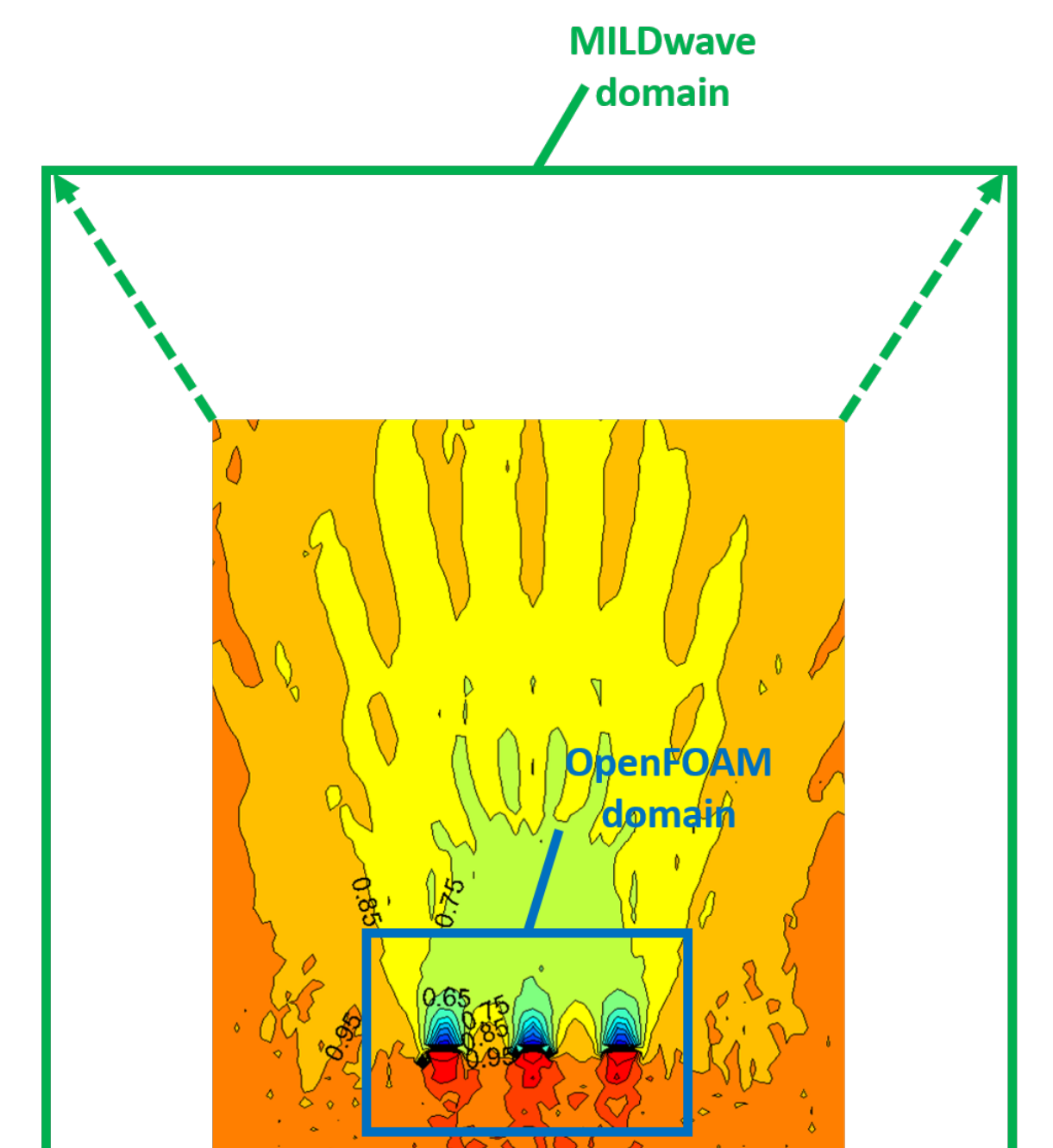
Wave energy



Simulation of a Wave Energy Converter farm using MILDwave

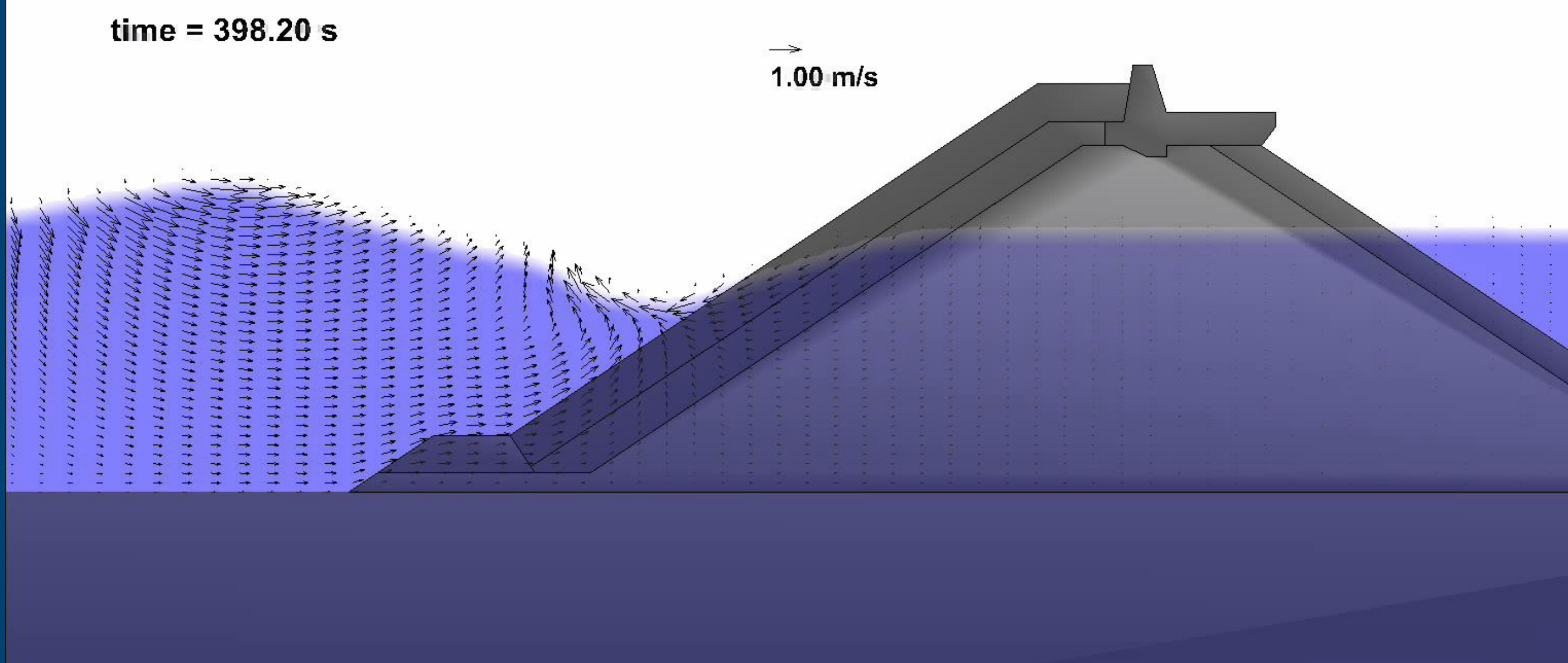


Simulation of the viscous flow field around a single Wave Energy Converter (WEC) using OpenFOAM



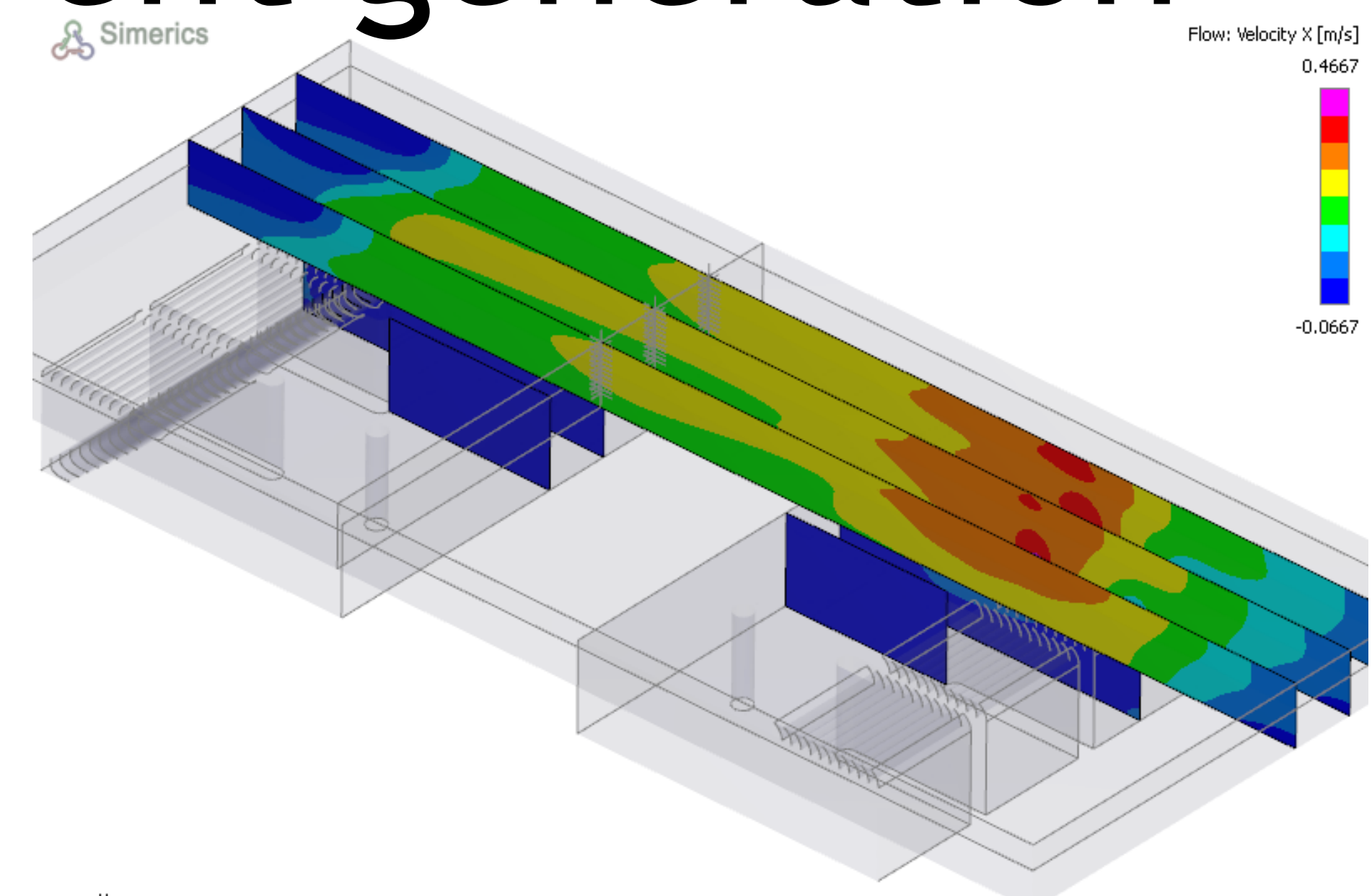
Coupling strategy of two models to study far field impact of WEC farms

Waves at structures



Simulation of the porous flow field inside a rubble mound breakwater using FLOW3D

Current generation



Design of the current generation system in the Coastal and Offshore Basin (COB) using Simerics