

NUMERICAL SIMULATION

We study the interaction between surface gravity wave and our submerged device using a state of the art direct numerical simulation of the Navier-Stokes equation (NSE) in its two-dimensional form with free boundary and moving bodies.

In order to properly describe the behaviour of the system, we need to simulate the full NSEs for multiphase flows with fluid-structure interaction; this approach allows for a complete and detailed evaluation of hydrodynamic forces acting on the resonators and of the energy dissipation.

Source URL: <http://www.waveabsorber.unito.it/en/content/numerical-simulation>