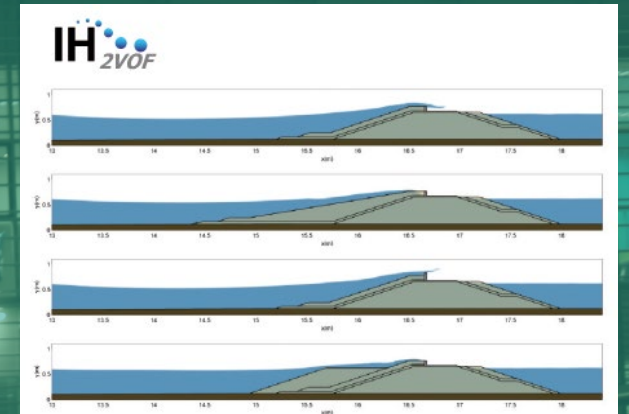


IH - 2V0F Training course



I H - 2 V 0 F

For more information and registration
visit: www.ih2vof.ihcantabria.com

IH Cantabria
Instituto de Hidráulica Ambiental de la Universidad de Cantabria
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IH-2VOF

solves the two-dimensional wave flow for hybrid domains in a coupled NS-type equation system, at the clear-fluid region (outside the porous media) and inside the porous media by the resolution of the Volume-Averaged Reynolds Averaged Navier-Stokes (VARANS) equations. Turbulence is modelled using a $k-\epsilon$ model for both the clear-fluid region and the porous media region.

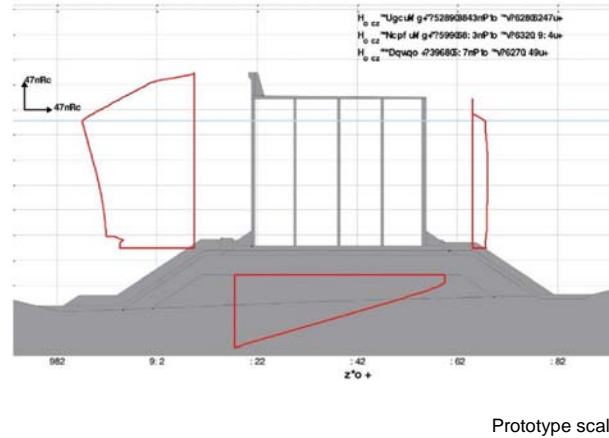
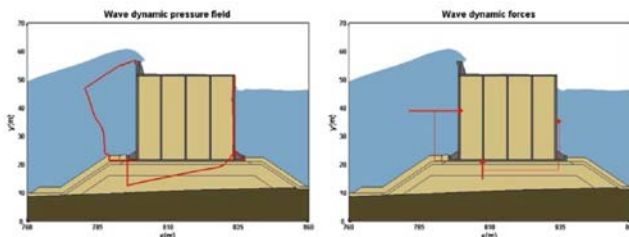
IH-2VOF is one of the most advanced RANS models thanks to its capabilities, robustness and extensive validation for both surf zone hydrodynamics and the stability and functionality of coastal structures.

Realistic wave generation, second order generation and active wave absorption are some of the unique features included in the model.

The model includes a Graphical User Interface with a mesh generator and pre-processing and post-processing tools.

Contents of the course

- Introduction to numerical modelling of wave structure interaction
- Wave generation and active wave absorption
- Mesh generation with CORAL
- IH-2VOF application to rubble-mound breakwaters
- IH-2VOF application to vertical breakwaters
- Visualize computed results using IH-2VOF GUI



Learning objectives

After completing the course you will be able to:

- Simulate surf zone hydrodynamics processes and wave interaction with coastal structures including random sea states and considering multilayer conventional or non conventional coastal structures.
- Analyze functionality and stability of coastal structures: wave reflection and transmission, wave run-up on coastal structures, wave dissipation, overtopping discharge, wave induced forces and moments.
- Visualize results using IH-2VOF GUI

What you get

- IH-2VOF source code and executable files (Linux/ Mac/Windows)
- IH-2VOF GUI
- CORAL (mesh generator)
- A USB-stick to continue your work on your own system at home or in your office.
- A set of benchmark cases

Teaching staff

Iñigo J. Losada (Full Professor, IH Cantabria)
Javier L. Lara (Associate Professor, IH Cantabria)

Schedule, Booking and Course Details

The next course will be held at at Ferrovial Agroman UK, Chiswick High Road, London, on June 8th

Registration fee (taxes not included):

- Regular: 1.800 euros per attendant
- Academia: 1.500 euros per attendant

The course will be delivered in English.

More information and registration:
www.ih2vof.ihcantabria.com

