

Numerical modelling of breakwaters

Dept. of Civil Engineering, Ghent University



tech**BOOST**
voor ingenieurs

Vakgroep Civiele Techniek
Afdeling Weg- en Waterbouwkunde
Technologiepark 904
9052 Zwijnaarde

awww.ugent.be

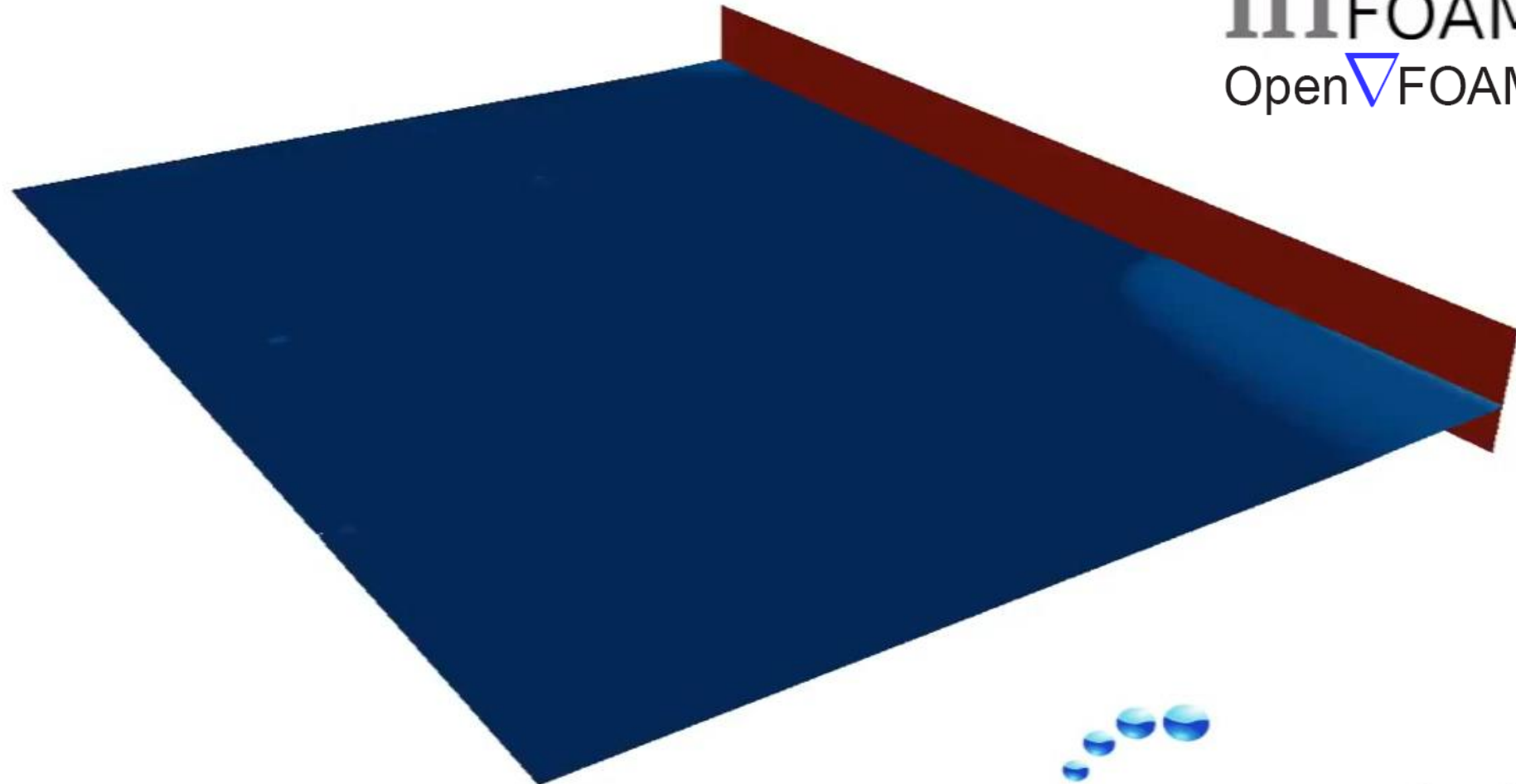
Contact: Peter Troch
Peter.Troch@UGent.be
Tel: +32 9 264 54 89

Why numerical modelling?

Nowadays, sustainable development of infrastructures on the coast - from conceptual layouts, optimisation, stability and environmental assessment to detailed design - requires a thorough understanding of coastal processes.

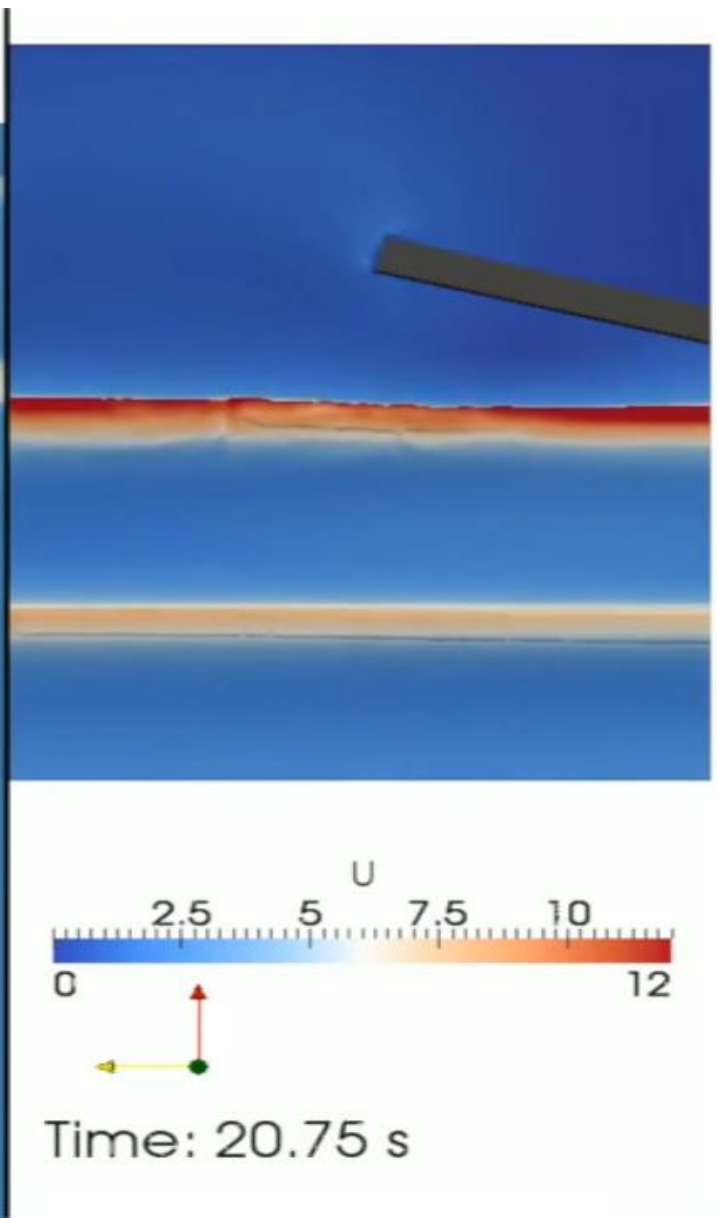
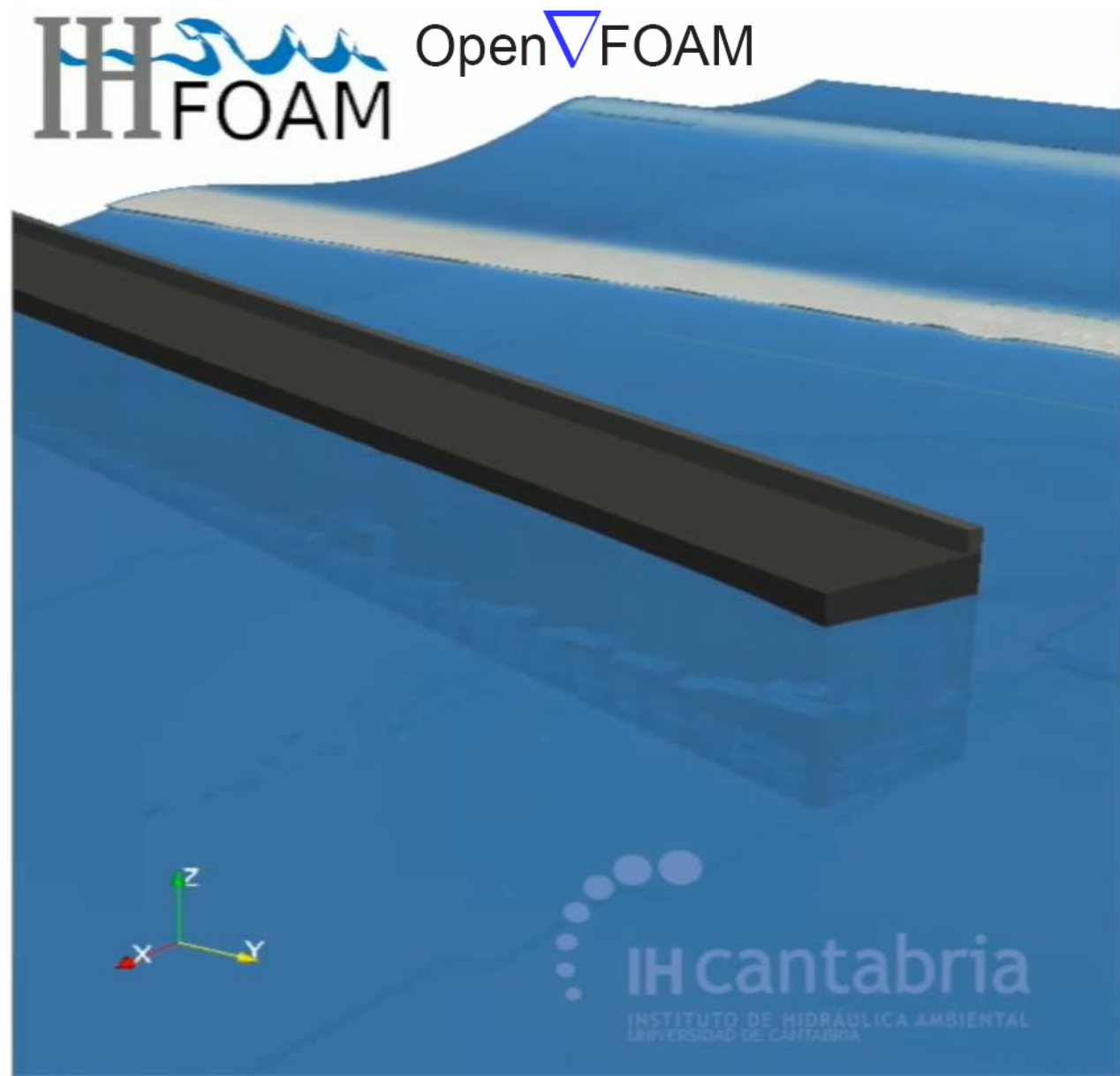
Numerical modelling is a suitable tool to investigate these physical processes and to deliver valid, accurate, efficient and usable solutions.

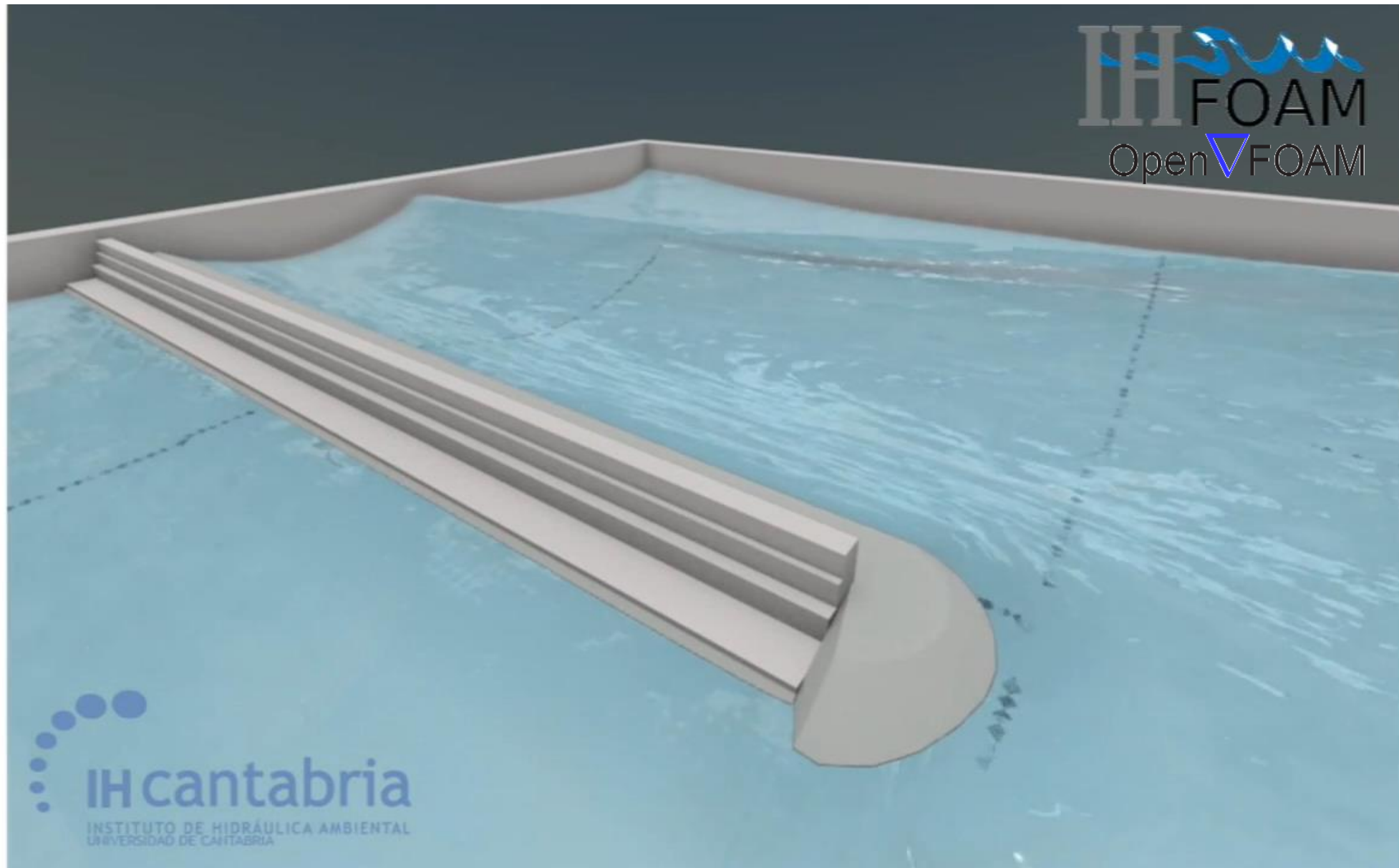
Therefore, numerical models are widely developed, validated and used for the design of all kind of coastal structures, such as breakwaters for example.



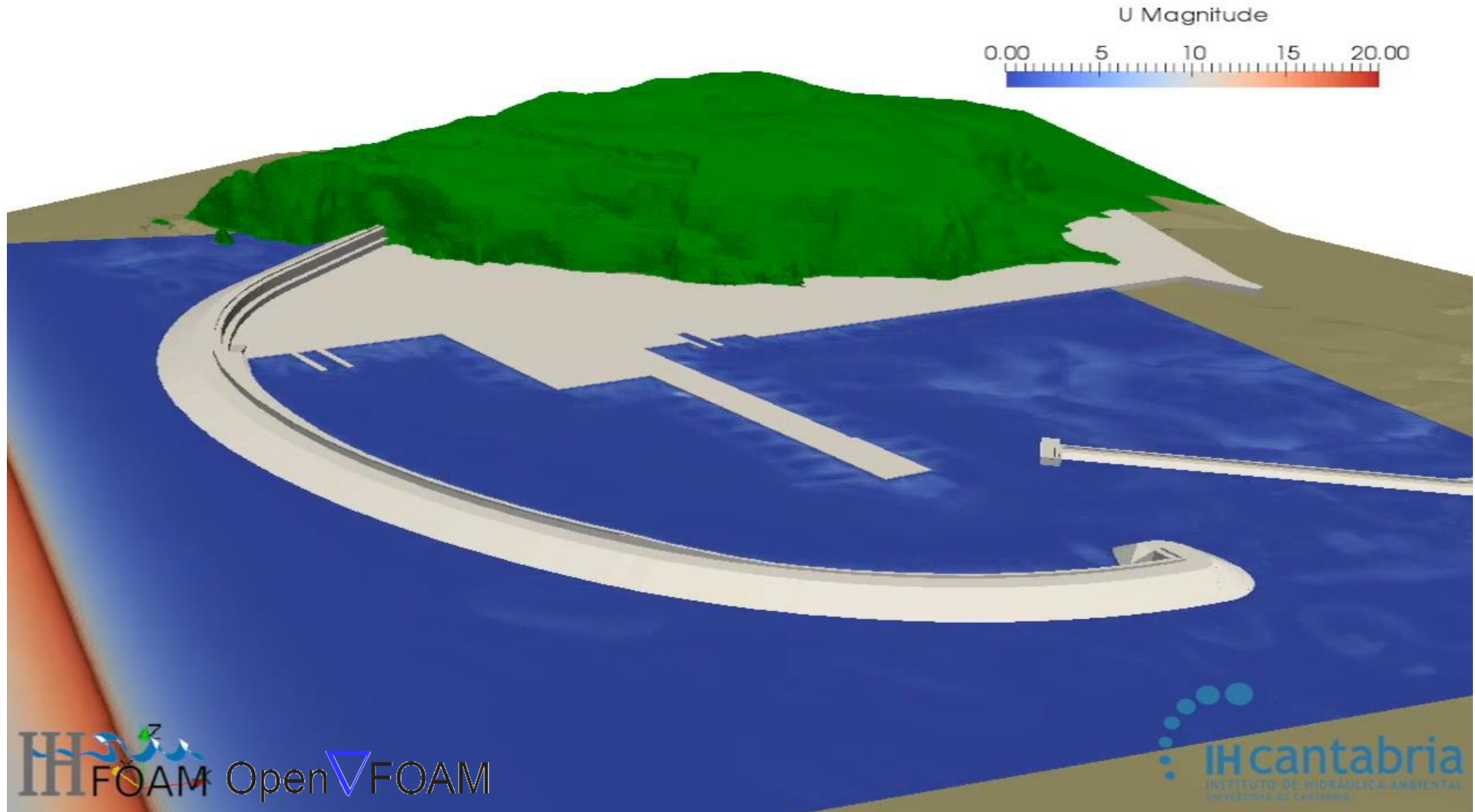
Time: 0.05 s

Wave interaction with a vertical breakwater





Tsunami approaching a harbour



time = 398.20 s

→
1.00 m/s

