

## Wave overtopping hazard to pedestrians: video evidence from real accidents

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How safe are we at the coastline when large waves are breaking over, or flowing over the defences? On what basis can an engineer design a defence which restricts wave overtopping to an *admissible* amount such that pedestrians will always be protected? How can someone responsible for public safety identify and act upon the onset of conditions which have the potential to be hazardous to pedestrians close to the shore? This seminar will attempt to answer these questions by setting out some recent research into the conditions (in terms of the depth and speed of water flows) which can prove hazardous to people.



The work is based upon quantitative analysis of video records of real accidents (although the audience can be reassured that there were no fatalities in any of the incidents studied).

**About the speaker:** In addition to his role as College of Science and Engineering Dean International Students, Tom Bruce is Professor in the School of Engineering at the University of Edinburgh. Tom's background is in fluid mechanics, with particular focus on Coastal Engineering. He has been active in research on wave overtopping since the late 1990s. Many of his team's outputs are now integrated within the *European Wave Overtopping Manual*, or *EurOtop*, which is the standard engineering guidance on the topic for many European countries, and used worldwide.

In his teaching, Tom specialises in Fluid Mechanics and Sustainable Energy.