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## CFD Simulation of Orifice Flow for the Flooding of Damaged Ships

The aim of this research is to investigate parameters that affect the behaviour of a damaged ship and also to assess the ability of RANS codes to accurately model the physical processes occurring in the flooding of a damaged ship. Initially, the flooding of a damaged ship has been divided into smaller components to assess the accuracy of the predictions for these flow-fields when validated against experiment or other simulation methods.

These components are:

1. Violent floodwater motions
2. Modelling a seaway
3. Compartment flooding rates
4. Rigid body motions

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