



The **OPENCoasts** service (<https://opencoasts.ncg.ingrid.pt/>) assembles on-demand circulation forecast systems for selected areas in the north Atlantic coast and keeps them running operationally for a period defined by the user. This service generates daily forecasts of water levels and vertically averaged velocities over the region of interest for 48 hours, based on numerical simulations of all relevant physical processes. Presently, all forecasts are made with the model SCHISM (<http://ccrm.vims.edu/schismweb/>).

**Location:** The OPENCoastS short course will be held at Max Planck Institute for Meteorology, in Hamburg, Germany, in the scope of IMUM2018 ([imum2018.mpimet.mpg.de](http://imum2018.mpimet.mpg.de))

**Date:** September, 2018

**Instructors:** Anabela Oliveira ([www.Inec.pt/hidraulica-ambiente/en/team/anabela-oliveira](http://www.Inec.pt/hidraulica-ambiente/en/team/anabela-oliveira)) and André Fortunato ([www.Inec.pt/hidraulica-ambiente/en/team/andre-fortunato](http://www.Inec.pt/hidraulica-ambiente/en/team/andre-fortunato))

**Format:** The course will be divided in two parts. The theory and application of OPENCoastS will be described in a presentation during one of the IMUM regular sessions. In a separate hands-on session, the participants will be guided through the implementation of their own forecast system. This second session will last one hour.

**Goal:** By the end of the course, participants will be able to generate their own forecasts, manage them and view the forecast results.

**Requirements:** Participants should bring a laptop with an internet connection, or else be willing to work in groups. Participants should also bring a finite element grid based on triangles, preferably for a coastal zone or estuary in Europe. The grid should preferably be in latitude-longitude, and the number of nodes is restricted to 150,000. The grid should be in the format used by models such as SCHISM, SELFE, or ADCIRC. A description of the file format can be seen in [http://ccrm.vims.edu/schismweb/SCHISM\\_v5.3.1-Manual.pdf](http://ccrm.vims.edu/schismweb/SCHISM_v5.3.1-Manual.pdf) (pages 47-49). A grid can be provided to those participants who do not have one.

**Registration:** The course is free for IMUM participants. However, participants need to:

- Register for the course at [https://docs.google.com/forms/d/e/1FAIpQLSeESZ0hi2Pea3WN9PblPD9hKyO\\_wL1ZiwG1zPGWFzMPuCqU8A/viewform](https://docs.google.com/forms/d/e/1FAIpQLSeESZ0hi2Pea3WN9PblPD9hKyO_wL1ZiwG1zPGWFzMPuCqU8A/viewform)
- Register as an OPENCoastS user at <https://opencoasts.ncg.ingrid.pt/> (they will receive a confirmation of registration)