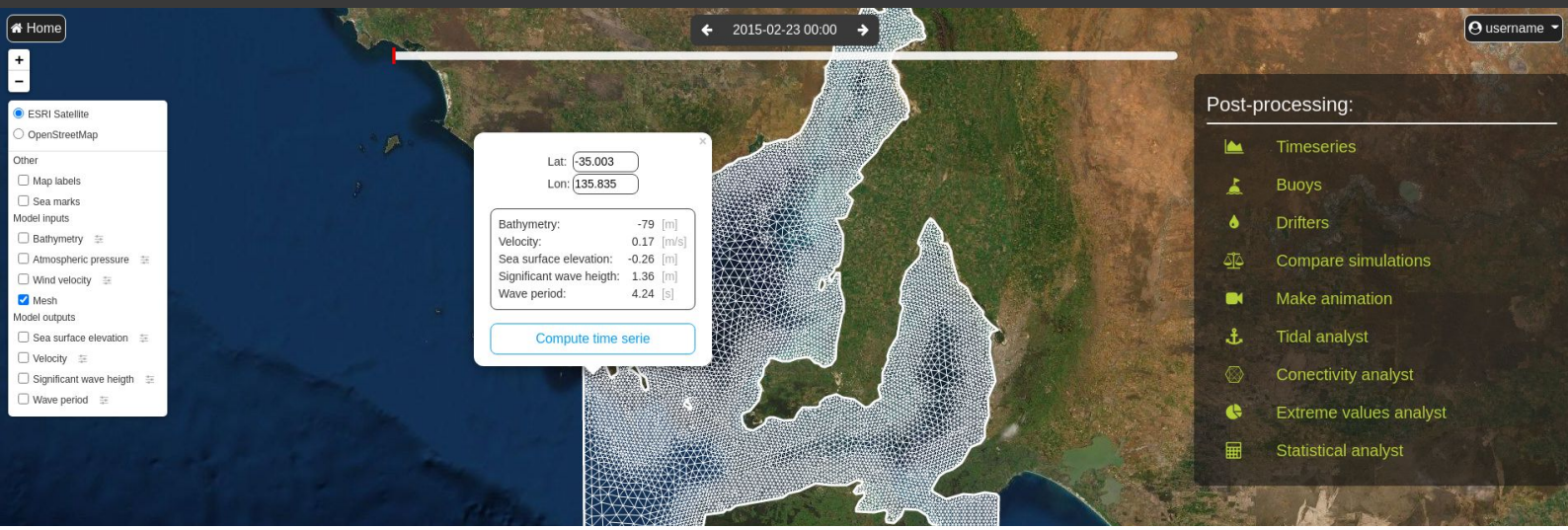
SEALAB Modeling



Coastal waters are very energetic and sea state rapidly evolves. Being able to predict the conditions of operability requires to understand the physical processes at stake. SEALAB Modeling quickly solves your problem by its smart and user-friendly platform allowing you to easily run coastal ocean simulations anywhere in the world and for any period of time. Our variable-resolution unstructured-mesh ocean and wave models enable you to accurately simulate fine-scale flow features in areas of interest. Building the mesh, gathering all the model forcing and parameterizing it is a matter of minutes. We take care of all the technical issues so that you can focus on your application. You can plan/simulate different dredging, reclamation or infrastructure building scenarii and compare results. You can also use the currents and waves to simulate the transport of drifting objects and substances such as oil spills, sediment plumes or plastic debris.

- **One platform, many models:** Our cloud-based platform includes state-of-the-art open-source models of the ocean circulation, waves, oil spills, sediments and many more.
- **Simple interface for complex models:** We take care of all the technical issues and easily guide you step-by-step through the models configuration.
- **Simulation results delivered quickly:** Computational resources are no longer a limiting factor as you can draw on virtually unlimited HPC resources.

The outputs you can expect from SEALAB Modeling are:

Oceanic conditions:

- Currents
- Water level
- Wind-generated waves

Pollutants dispersal

- Oil spill
- Sediments plume
- Plastic debris

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