



Short-term (12 months) postdoctoral position at University of Santiago de Compostela

The main objective of this study is to know the effect that the polygons dedicated to mussel cultivation (mussel rafts) can have on the quality and production of the ecosystem of the Galician estuaries. Hundreds of ropes are suspended into the water column from each structure. Mussels attach to the ropes and filter feed on phytoplankton and other suspended organic and inorganic particles. Ría de Arousa alone contains over 2,400 mussel rafts.

The effect of pollutant capture and dispersion from mussel raft polygons to other areas of the estuaries will be modeled to predict, on the one hand, their potential modulating effect on anthropogenic pollution and, on the other, the areas where waste from these polygons may accumulate.

The candidate will utilize a Lagrangian model to simulate transport of waste from the mussel ropes suspended from the rafts. Because of their density, this debris may migrate vast distances at various depths, therefore the model should account for this, and parameterize the debris release from the mussel ropes beneath the rafts.

The contracted postdoc will get a gross monthly income of 2.700 euros (14 payments). The contract will begin in February 2025 and last for one year, with a weekly workload of 35 hours.

The postdoc will work at the Physics Department (Group of Nonlinear Physics, CRETUS Research Center).

Requirements

Good knowledge of scientific programming; Fortran and Python. Doctorate related to the project (physics, mathematics, etc). Research papers on Lagrangian transport models. Experience dealing with Netcdf file formats, ARGIS/QGIS and good skills using Linux clusters will be valued. Good knowledge of English.

Contact

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