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Orientation: Ocean Observation and Global Change  
 Specialization Area: Ocean Observation  
 Research Area: Chemical Oceanography



**PhD project: Development and implementation of a coupled hydrodynamic and biogeochemical model: Creation of a virtual oceanographic laboratory for the Galician coast.**

**Supervisor:** Dr. Antonio Luciano Velo Lanchas (CSIC)

**Summary:** Creation of an optimal configuration of the coupled physical-biogeochemical model CROCO-PISCES for the calculation of the carbon cycle in the Atlantic Iberian Basin and the Iberian Upwelling System at different spatial and temporal scales. Validation, analysis of results and study of the sensitivity of the coupled model through databases and monitoring networks. Subsequent retrospective analysis of trends in the carbon system on the Galician coast, in order to make a forecast of the carbon cycle and other biogeochemical cycles in future climate scenarios. Finally, an ICT tool will be created, a virtual oceanographic laboratory of the Galician coast, based on the coupled CROCO-PISCES models.

