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Orientation: Ocean Observation and Global Change
Specialization Area: Ocean Observation
Research Line: 1.1 Physical Oceanography



PhD project: **Sustainable aquaculture development in estuarine systems**

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Summary: According to Almeida et al. (2009) aquaculture is growing more than 10% per year and this trend is expected to continue in the future. This increase is essential to supply fish for a growing human population, making crucial to find the optimal environmental conditions for its exploitation. With current aquaculture practices, negative impacts in the environment must be considered, including introduction of excess fish food and fecal matter in estuarine waters. Thus, this proposal intends to develop and apply dynamic modeling frameworks designed to optimize the aquaculture productivity and impacts in Ria de Aveiro and Galician Rias, where this activity is currently explored under unknown conditions. Areas with the best hydrodynamic and water quality conditions to exploration will be defined, as well as the ideal conditions to mitigate or nullify their negative impacts will be researched, assuring the scientific novelty and national relevance of this proposal.

