

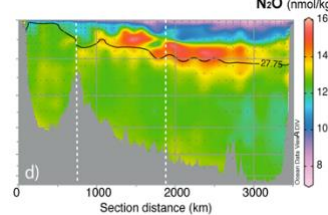
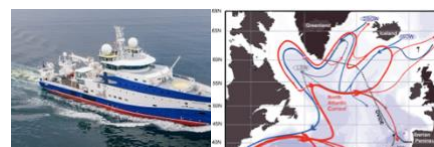
## Dynamics of nitrous oxide data in the Atlantic Ocean: from laboratory measurements to advanced environmental data analysis

Are you fascinated by the ocean's invisible climate drivers and eager to combine lab work with data science?

We are looking for a curious and motivated PhD student to join our team and explore how nitrous oxide ( $\text{N}_2\text{O}$ )—a powerful greenhouse gas and ozone-depleting substance—is produced, mixed/advected, and exchange with the atmosphere by the Atlantic Ocean and Antarctic Ocean. This project offers a unique opportunity to contribute to cutting-edge research in marine biogeochemistry while developing new tools for working with complex environmental datasets. You will work at the intersection of experimental science and data analysis: conducting precise laboratory measurements, participating in oceanographic cruises, and using computational tools to extract insights from large datasets. This is an exciting chance to develop skills that are highly valued across academia and environmental science.

### What you'll do:

- Quantify concentrations and exchange of  $\text{N}_2\text{O}$  in the Atlantic Ocean and Antarctic Ocean through open ocean oceanographic cruises and laboratory work.
- Help develop automated methods for quality control of oceanographic data.
- Use data analysis techniques to uncover patterns and drivers of  $\text{N}_2\text{O}$  variability.
- Contribute to global datasets and collaborate with international climate research initiatives.



### What we're looking for:

- Background in Marine Sciences, Environmental Sciences, Biology, Chemistry, or related fields.
- Experience with laboratory techniques (e.g., gas analysis/chromatography) is a plus.
- Interest in learning programming and working with real-world environmental data.
- A collaborative mindset and good communication writing skills in English.
- Enthusiasm for the ocean, climate science, and interdisciplinary research.

### Where you'll work:

The PhD will be based at the Department of Oceanography at the Instituto de Investigaciones Marinas (IIM-CSIC) in Vigo, Spain, within a dynamic and interdisciplinary research environment. You will have the chance to join oceanographic campaigns, receive training in both lab and data techniques, and work closely with experts in marine biogeochemistry and environmental informatics.

### Funding:

We aim to fund it the contract through competitive calls (e.g., FPU, foundations or European programs). The PhD will be associated to several ongoing projects in the group that including oceanographic cruises in the Atlantic and Southern Ocean

### Interested?

Send your CV and a short motivation letter to [mercedes.delapaz@iim.csic.es](mailto:mercedes.delapaz@iim.csic.es). We encourage applications from students who are curious, open-mind and excited about the ocean's role in our climate system.