

A Systems Approach to Atmosphere-Ocean Interaction.

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Fluid Dynamics and Acoustics Group

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Would you like to do a PhD that will help us understand our planet?

The project: to combine oceanography with a complex systems science approach and develop novel ways of understanding the boundary between the atmosphere and the ocean.

The air-sea boundary is a crucial part of our climate and weather system. Gases and particles are constantly exchanged between the atmosphere and the ocean, and these exchanges depend on many interacting factors (for example, wind speed, water temperature and biological activity). To improve on current weather and climate models, it's necessary to be able to predict these interactions in different oceanic conditions. However, current progress is very slow, partly because of the difficulty of measurement and partly because we lack a detailed systems approach to our data analysis.

We now have a fantastic opportunity to use an extensive data set to test a new approach.



The aim of this project is to take a systems approach to this problem, and to consider it from a relatively unusual point of view. The successful applicant will have a strong maths or physics background, and an interest in complex systems science. It also provides the opportunity to develop a multidisciplinary set of skills, and a strong foundation for continuing a career in this field in the future.

For more information, please contact Helen (h.czerski@soton.ac.uk).