



**“WHAT DETERMINES WATER MASS TRANSFER AND VARIABILITY  
ACROSS THE WEST ANTARCTIC PENINSULA CONTINENTAL SHELF?”**

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CCPO

**Monday, March 31, 2014**  
3:30 PM

***Room 1202, Engineering and Computational Sciences Building***

Abstract

The West Antarctic Peninsula (WAP) is one of the fastest warming regions on Earth. It has also experienced a large decline in sea ice cover. In this region, the southern limit of the Antarctic Circumpolar Current (ACC) is adjacent to the shelf break, allowing transfer of warm Circumpolar Deep Water onto the shelf. Following on from previous work carried out at CCPO, I will be using a high-resolution, ocean-ice shelf-sea ice model, forced with atmospheric reanalysis, to investigate which processes influence this transfer of warm water. I will also be investigating the role of ocean-atmosphere-ice interactions in determining water mass properties on the continental shelf. I will present an overview of previous work and the motivation for this study, as well as a glimpse at some of the initial results.

Biography

Dr. Jennifer Graham joined CCPO as a postdoctoral researcher in June 2013, relocating from the University of East Anglia (Norwich, UK), where she also gained her Ph.D. in Environmental Sciences. She received a M.Phys. in Astrophysics from the University of St. Andrews. Her research interests include water mass formation and variability, the role of atmosphere-ocean-ice interactions, and their influence on the global climate system.

*Reception before seminar at 3:00 PM*