

SCOR/IAPSO Workshop on Deep Ocean Exchange with the Shelf (DOES)

**6 - 8 October 2008
Cape Town, South Africa**

SPONSORS

- Scientific Committee on Oceanic Research (SCOR)
- International Association for the Physical sciences of the Ocean (IAPSO)

INTRODUCTION

The shelf break is a region of steep slopes, strong narrow currents, internal tides, shelf waves and significant vertical motion. With the advent of much finer resolution in ocean models, it is a good time to address the links between the shelf circulation and the deep ocean circulation at the shelf break. Improved understanding of the exchanges between the shelf and the deep ocean will be useful for more realistic models for studying climate, the carbon cycle, sedimentation and marine ecosystems.

The exchanges and fluxes that occur near the shelf break are important parts of the global ocean circulation. These fluxes include sediments and biomass as well as seawater. Strong mixing associated with significant topography is an important component in the theories of the global thermohaline circulation and an important feature in the energy balance of the oceans.

With the advent of new observational technologies and a new generation of ocean models, this is an appropriate time for this workshop. Improved models and observations leading to a better understanding of the processes that occur between the shelf and the deep ocean will be of benefit in maintaining fish stocks and dealing with threats of pollution from oil and gas wells, and for studying river runoff and sedimentation. Coastal areas are often regions of enhanced primary production due to coastal upwelling. Understanding the carbon cycle in such ecosystems and how it is transferred into deeper waters is relevant to climate studies.

WORKSHOP PROGRAMME

Each day of the workshop will be split into four sessions. On Monday the first two sessions will consist of invited lectures on theoretical and qualitative aspects of Deep Ocean Exchange with the Shelf (DOES) including time and space scale in physical processes, the controls on chemical processes, transport from the shelf in biogeochemical processes, and the roles of eddies canyons and topography in DOES. The third session will have invited lectures on well-studied DOES systems in the Atlantic and India Oceans. The final session will be allocated to contributed posters (with refreshments).

The first session on Tuesday will have further invited talks on well studied DOES systems in the Pacific ocean and the polar seas. For the second and third sessions the participants will be split into groups for workshops on various aspects of DOES. Each group will be lead by two members of the SCOR DOES Working Group. The workshops topics will include new observational tools, what we want from models, the role of canyons and eddies in DOES, and exchange rate parameters for heat, salt and fresh water. The final session of the day will again be allocated to contributed posters (with refreshments).

Wednesday will begin with a session of invited talks on numerical models that are most suitable for dealing with DOES systems. The second session will be two parallel workshops on future modelling and future observations. After lunch there will be reports from all the working chairs and then a final discussion on future steps to be taken to understand DOES systems.

On Thursday 9th October there will be a follow up discussion to be held at the University of Cape Town for delegates from African countries and other developing countries to meet with overseas experts on organising oceanographic cruises.

VENUE and ACCOMMODATION

The workshop will be held at the Breakwater Lodge on the Victoria and Albert Waterfront in Cape Town. Accommodation has been reserved in Breakwater Lodge.

REGISTRATION and FURTHER INFORMATION

The registration form for the workshop may be found on the SCOR web site (see <https://www.confmanager.com/main.cfm?cid=1293>). This web site will be updated as further details of the Programme are developed.

WORKSHOP ORGANISERS

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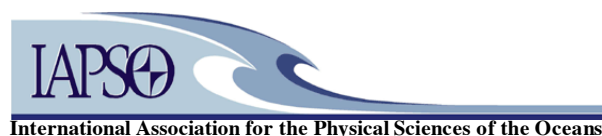
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FURTHER INFORMATION

This page will be updated on the DOES page of the SCOR web site (see http://www.scor-int.org/Working_Groups/wg129.htm) as further details of the Workshop Programme develop.

FINANCIAL SPONSORS

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