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## Tracing the World Oceans with $\Delta^{14}\text{C}$

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During the 1990s a new global ocean radiocarbon data set consisting of almost 20,000 samples was collected as part of the World Ocean Circulation Experiment (WOCE). The measurements have been completed and a new empirical algorithm developed which allows separation of the results into bomb-produced and natural components. The bomb-produced and natural radiocarbon distributions can be used to study large scale oceanic processes including air-sea gas exchange, thermocline ventilation and thermohaline circulation. Perhaps even more valuable is the use of these data to constrain or invalidate numerical ocean models.

In this talk we will briefly examine the data distributions and changes in the bomb-produced radiocarbon changes over the past 20 years, and then see how the data are being used in various modeling studies.

**Montag, 13. Dezember 2004, 17:30 Uhr**  
(ab 17:00 Uhr Kaffee)

Großer Hörsaal des Instituts für Experimentalphysik der Universität Wien  
Strudlhofgasse 4/1. Stock, A-1090 Wien

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