Physical Oceanography

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Title: **Role of the Central Intermediate Water (CIW) of the Weddell Sea, Southern Ocean**

Data: In situ observations

Role of the Central Intermediate Water (CIW) of the Weddell Sea, Southern Ocean

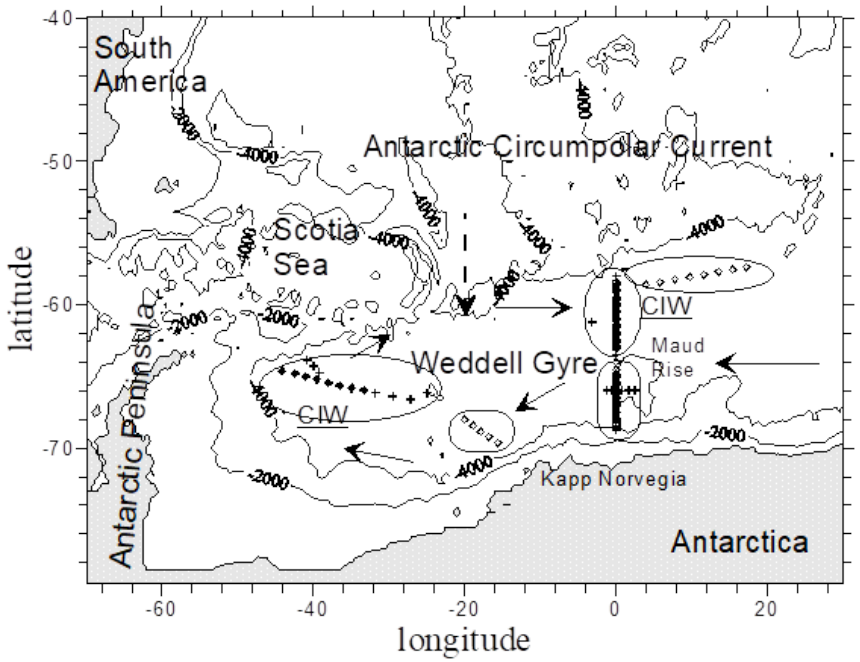
About Central Intermediate Water

- Extreme water mass in Weddell Sea: lowest Temp-max/Sal-max, lowest oxygen minimum; **highest CO_2 & nutrients concentrations**
- Efficient conduit for transferring nutrients and gases to the ocean abyss
- Sub-surface water mass: not well-ventilated
- **Global significance at abyssal scales**

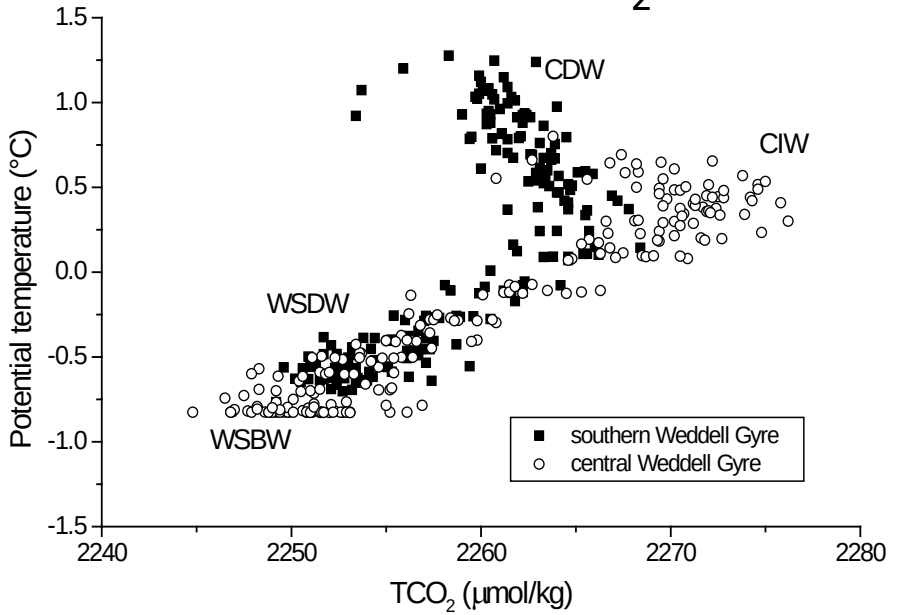
Aims

- Optimize description and definition of CIW
- Variability of the CIW – lateral & seasonal
- Compute enrichment of CO_2 and nutrients in CIW
- Determine pathway of CIW through the Weddell Gyre
- Role of upwelling versus lateral transport

Hydrographic data from cruises in the Weddell Sea will be used. Many of those were collected with **RV Polarstern**. Data are available from few sources, so no need to perform time-intensive data retrieval.



Enrichment of CO_2 in CIW



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