

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

Mario Hoppema (Mario.Hoppema@awi.de)

About Central Intermediate Water

- One of the extreme water masses in the gyre: lowest Temp-max/Sal-max, lowest oxygen minimum; highest CO₂ & 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 magnitude of attenuation of characteristics
- Compute enrichment of CO₂ 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.

Mario Hoppema

