Impact of islands and ocean circulation to phytoplankton growth and composition in the Atlantic Sector of the Southern Ocean





Phytoplankton blooms, as primary producers, can trigger the ocean to be a sink of carbon. In the Southern Ocean, however, despite a lot of nutrients the primary producers are limited by micronutrients, such as iron. Blooms are developing locally, probably triggered by their initiation close to islands and upwelling.

During Polarstern expedition PS133-2 we sampled in spring 2022 high resolution (optical) data on phytoplankton together with oceano-graphic data close to several Southern Ocean islands . These, together with satellite data, shall be used to identify the drivers of phytoplankton growth and its composition.

- **Task**: To evaluate the impact of islands to Southern Ocean phytoplankton growth and composition using high resolution optical and oceanographic data from Polarstern expedition.
- Pre-reqs: knowledge in programming and handling of large data sets (python), basic knowledge in oceanography, remote sensing and ocean optics

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