

Sea Ice Physics

Supervision: Prof. Dr. Christian Haas (christian.haas@awi.de)

title: Surface energy balance of Arctic and Antarctic sea ice

Data: In situ observations (atmospheric radiosondes) + re-analyses

Surface energy balance of Arctic and Antarctic sea ice

- Compare the surface energy balance over sea ice in the Arctic and Weddell Sea with the
- main objective: to understand why Arctic sea ice is shrinking while Antarctic sea ice is not, and why there are no melt ponds on Antarctic sea ice, or only under specific conditions
- Use radiosonde data from Arctic and Antarctic Polarstern cruises (e.g., Mosaic and PS124/COSMUS)
- Use ERA5 atmospheric reanalysis data
- Requirements: Good programming and English language skills, good grades, (experience with atmospheric physics is of advantage)

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