

Term project outline

Title: Atlantic meridional overturning circulation

Objective: This term paper will summarize the recent progress and current knowledge gaps in our understanding about the Atlantic Meridional Overturning Circulation.

Scientific questions: What is AMOC? Why is it important? How do we measure the magnitude of AMOC? What are the recent changes in AMOC? What do we know about its past change from paleoclimate proxies? What are the climate model projections of AMOC in this and coming centuries?

Outline:

1. Motivation
 - a. What is AMOC?
 - b. Why is it important?
2. Modern observations
 - a. Are there modern measurements of AMOC?
 - b. What instruments are used for these observations? How accurate are they?
 - c. Are the measurements in agreement with existing theory or models?
3. Paleoclimate reconstructions
 - a. Are there paleoclimate reconstructions of AMOC? What proxies are used for these reconstructions?
 - b. What are the strengths and weaknesses of different proxies?
 - c. How well can we explain the past AMOC changes?
4. Discussion and conclusion
 - a. Summarize findings from previous study about AMOC.
 - b. Identify “knowledge gaps”. What is missing from our current understanding?

References should include:

Last name, Initials, more names for multiple authors, (YEAR), Title, Journal, Volume (Number), pages, doi.

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