<u>SCOR Working Group 168 Webinar #3</u>

Title: A new synthetic float dataset to assess uncertainties in (BGC) Argo-based analyses

Presenter:
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Autonomous observing systems, such as profiling Argo floats, have been revolutionizing our understanding of oceanography. However, uncertainties persist regarding the ability of current float sampling protocols to accurately capture the full spatio-temporal variability of physical, biogeochemical, and biological properties, which limits the effectiveness of float-derived gridded products and complicates the detection of long-term trends. Numerical models with synthetic observing systems offer one potential avenue to address these uncertainties. In this talk, I will present a new synthetic float dataset generated with the biogeochemical float capabilities of the Energy Exascale Earth System Model version 2. I will showcase examples of how this dataset is already being applied, such as assessing uncertainties in the creation of gridded biogeochemical products from floats, and hope to inspire a discussion about future use cases.

<u>Agenda for March 26, 2025</u>
1. **Introduction:** WG 168 Co-Chairs
2. **Main Presentation:** Cara Nissen
3. **Q & A Session**

Webinar Series Information
The 4D-BGC Working Group seeks to enhance access and utility of Biogeochemical (BGC) Argo observations through four-dimensional (4D) data products. These advanced data products aim to refine our understanding of ocean biogeochemistry, improve biogeochemical models and reanalysis products, and provide valuable insights for policy-making. The goal of this webinar series is to introduce new and in-development BGC data products, review techniques used to develop data products from in situ observations, and to explore way in which 4D-BGC products are leveraged to answer scientific questions.