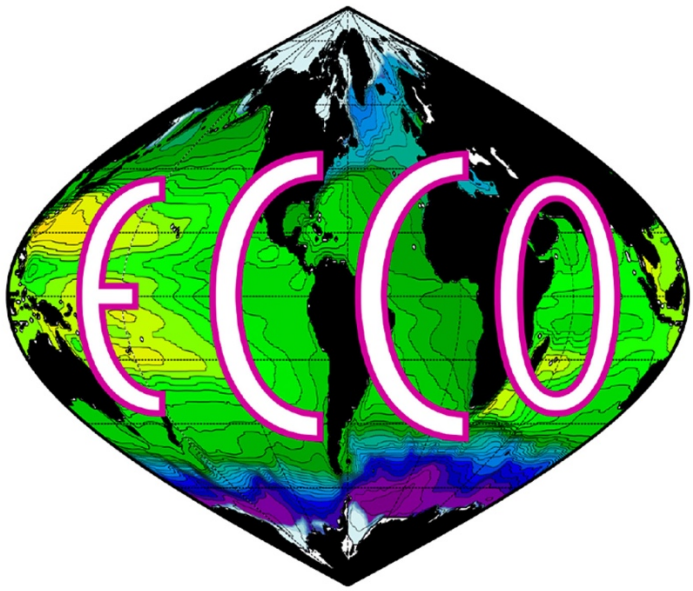
2026 ECCO Annual Meeting
Agenda

May 28-29, 2026



University of Texas at Austin
Oden Institute for Computational Engineering and Sciences

Thursday, May 28

Session 1: Core ECCO Production & Operations

- 8:30-8:50 - Welcome to the 2026 ECCO Meeting (Patrick Heimbach, UT Austin)
- 8:50-9:10 - NASA Ocean Physics 2025-2026 (Nadya Vinogradova Shiffer, NASA HQ)
- 9:10-9:30 - Integrated Earth System Modeling (Lesley Ott, NASA GSFC)
- 9:45-10:15 - ECCO Central Production (Ian Fenty, JPL)
- 11:15-11:35 - ECCO High-res Model Updates (Dimitris Menemenlis, MLML / SJSU)
- 11:35-11:55 - The Arctic Subpolar grye sTate Estimate (ASTE) and UT-Austin CRIOS Contributions (An Nguyen, UT Austin)
- 11:55-12:15 - Nested Regional State Estimates @ ecco.ucsd.edu (Matt Mazloff, SIO–UCSD)
- 12:15-12:30 - *Discussion*

Session 2: High-Resolution Global & Regional Modeling

- 1:30-1:50 - Attribution of Freshening in the Central-equatorial Pacific Ocean During El Niño (Tony Lee, JPL)
- 1:50-2:10 - Arctic Ocean Heat Budget (Ali Siddiqui & Marie Zahn, Brown Univ.)
- 2:10-2:30 - Downscalling ECCO for Greenland and Antarctica (Mike Wood, MLML / SJSU)
- 2:30-2:50 - ECCO Infrastructure, Activities, and Science at MIT (Gael Forget, MIT)
- 2:50-3:10 - A Post-hoc Approach for Including Atmospheric Error Covariance in Ocean State Estimation (Dan Amrhein, NSF-NCAR)

Session 3: Adjoint Applications

- 3:40-4:00 - CFC-11 Added to ECCO as an Abiotic Tracer Highlights the Role of Biology (Yavor Kostov, British Antarctic Survey)
- 4:00-4:20 - Adjoint-Derived Drivers of Ocean Variability (Noah Rosenberg, Univ. of Washington)
- 4:20-4:40 - Subpolar North Atlantic Heat Flux Drives Projected U.S. East Coast Sea-level Trend in a Climate Model (Ou Wang, JPL)
- 4:40-5:00 - Tangent-Linear Modeling of Underwater Acoustics (Ivana Escobar, Applied Research Laboratories)
- 5:00-5:30 - *Discussion*

Friday, May 29

Carry-over + Session 4: Biogeochemistry

- 8:30-8:50 - ECCO Downscaling for Antarctic Coastal Regions (Yoshihiro Nakayama, Dartmouth College)
- 8:50-9:10 - DJ4Oceananigans (Dhruv Apte, UT Austin)
- 9:10-9:30 - Automatic Differentiation and Performance Portability for Oceananigans via Enzyme + Reactant (Billy Moses, UIUC)
- 9:30-9:50 - *Discussion*
- 10:20-10:40 - ECCO-Darwin Development/Science Update (Dustin Carroll, MLML/SJSU)
- 10:40-11:00 - Dynamic Loss of the Arctic's Oldest Ice Triggered a Sea-ice Tipping Point (Clément Bertin, SJSU/BAERI)
- 11:00-11:20 - Biogeochemical Parameter and State Estimation MITgcm – BLING (Angela Kuhn, Scripps Institution of Oceanography)
- 11:20-11:40 - Mode Water, a Key Pathway for Earth Energy Imbalance to Deep Ocean (Yuanyuan Song, MIT)
- 11:40-12:10 - Detecting Long-Term Deep-Ocean Steric Changes through Sea Level Budget Analysis Remains Challenging (Xinfeng Liang, Univ. of Delaware)
- 12:10-12:30 - *Working discussion: Applications using satellite data to constrain BGC & ecosystem parameters*

Session 5: Future Outlook & Emerging Tech

- 1:30-1:50 - ECCO's Perspective on Earth's Energy Imbalance (Andrew Delman, UCLA)
- 1:50-2:10 - Lagrangian Tracer Budget Based on ECCO (Wenrui Jiang, MIT)
- 2:10-2:30 - SMART Cable Observing System Simulation Experiments in the North Atlantic (Matthew Goldberg, UT Austin)
- 2:30-2:50 - Improving Bottom Pressure Fields using GRACE Data in ECCO (Rui Ponte, AER)
- 2:50-3:10 - Sensitivity of the Equatorial Undercurrent to Vertical Mixing (Kate Q. Zhang, JIFRESSE/UCLA)
- 3:10-3:30 - Explore Machine Learning Surrogate Model of Ocean Surface and its Application in Data Assimilation (Jinbo Wang, Texas A&M)
- 4:00-5:00 *Panel/Open Discussion: Machine Learning — neural ocean emulators & NN approaches to state estimation*