

T001. An Introduction to Ensemble-based Data Assimilation

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T002. An Open Source Proteomics and Metabolomics Visualization and Development tool for Quantitative Mass Spectrometry Experiments

Brook L Nunn, University of Washington, Department of Genome Sciences, Seattle, WA, United States and **Emma Timmins-Schiffman**, University of Washington, Department of Genome Sciences, Seattle, WA, United States

T003. Extraterrestrial Oceanography : The Hydrocarbon Seas of Saturn's Moon Titan

Ralph D Lorenz, Applied Physics Laboratory Johns Hopkins, Laurel, MD, United States

T004. Going with the Flow: Lagrangian Oceanography using Acoustically Tracked Subsurface Floats

Amy S Bower, WHOI, Woods Hole, MA, United States and **Heather H Furey**, WHOI, Woods Hole, MA, United States

T005. Modeling of Physical-Biological Interactions Using the Open-Source Connectivity Modeling System

Claire B Paris¹, **Ana-Carolina Vaz**¹ and **Sally Wood**², (1)University of Miami, Miami, FL, United States(2)Bristol University, Bristol, United Kingdom

T006. Moving Beyond Planning to Implementation: Open-Source Tools from the Geoscience Community and Unidata for Data Management

Joshua Wellzie Young, University Corporation for Atmospheric Research, Unidata, Boulder, CO, United States

T007. Non-invasive Monitoring at the Benthic Interface – the Aquatic Eddy Covariance Technique

Peter Berg, University of Virginia, Charlottesville, United States, **Markus H Huettel**, Florida St Univ, Tallahassee, FL, United States, **Clare Reimers**, Oregon State University, Corvallis, United States and **Ronnie N Glud**, University of Southern Denmark, Odense, Denmark

T008. Ocean mixing: from stratified turbulence to large scale meridional overturning circulation

Ali Mashayek, Massachusetts Institute of Technology, Cambridge, MA, United States and **Colm P Caulfield**, University of Cambridge, Department of Applied Mathematics and Theoretical Physics, Cambridge, United Kingdom

T009. R: A Software System for Oceanographic Work at the Interface.

Clark Richards, Woods Hole Oceanographic Inst, Woods Hole, MA, United States; RBR Ltd., Ottawa, ON, Canada and **Dan E Kelley**, Dalhousie University, Oceanography, Halifax, NS, Canada

T010. Recent advances in the fundamentals of turbulent flow - relevance (and some irrelevance) to oceanic flow

Evan A Variano, University of California Berkeley, Berkeley, CA, United States

T011. Recognizing Ocean Deoxygenation as a Global Change Challenge

Lisa A Levin, University of California San Diego, La Jolla, CA, United States

T012. Uncertainty Quantification in Geophysical Fluid Flow Models

Mohamed Iskandarani¹, **Omar M Knio**^{2,3} and **Ibrahim Hoteit**³, (1)University of Miami - RSMAS, Miami, FL, United States(2)Duke University, Mechanical Engineering and Material Science, Durham, NC, United States(3)King Abdullah University of Science and Technology, Thuwal, Saudi Arabia

T013. Velocity and transport from oceanic electric fields: principles and practice

Zoltan B Szuts, University of Washington, Seattle, WA, United States, **James B Girton**, Applied Physics Laboratory University of Washington, Seattle, WA, United States and **Thomas B Sanford**, Univ Washington, Seattle, WA, United States

T014. What Controls the Distribution of Dissolved Iron in the Ocean?

Alessandro Tagliabue, University of Liverpool, Liverpool, L69, United Kingdom

T015. Which Way is Up: Adaptive Microbial Responses that Buck Human Expectations, and Implications for Transcriptomic Dataset Analysis

Patricia Louise Tavormina, California Institute of Technology, Pasadena, CA, United States and **Jeff J Marlow**, California Institute of Technology, Pasadena, CA, United States

T016. Why does it matter that the ocean isn't blue?: Regional impacts on circulation and ecosystems

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