

Agenda for AOSN Adaptive Sampling Working Group Meeting

Tuesday, November 12, 2002

Room J-223, Engineering Quadrangle, Olden Street
Department of Mechanical and Aerospace Engineering
Princeton University

- 9:00 – 9:15 Attendees arrive
- 9:15 Opening remarks and agreement on agenda
- 9:30 Overview of adaptive sampling collaborative effort and integration (Leonard)
- 10:00 Discussion of overview.
- 10:15 Big-picture perspective on overall structure of MB'03 and adaptive sampling (Bellingham)
- 10:30 Oceanographic sampling requirements and glider capabilities (Fratantoni)
- 10:45 Discussion.
- 11:00 Break.
- 11:15 Models and adaptive sampling (Robinson/Lermusiaux, Chao, Shulman, Majumdar)?
- 11:45 Discussion.
- 12:00 Break. Box lunches will be distributed in conference room so discussion can continue.
- 12:15 Discussion/Identification of adaptive sampling scenarios for glider network for MB'03
- What are the different kinds of strategies we can provide?
 - Which strategies will be used for which purposes, address which challenges and hypotheses?
 - What are the relevant spatial scales for adaptive sampling and how do they fit with the different scenarios?
 - What are the system constraints and anticipated problems that impact adaptive sampling (communication, glider dynamics, ...)? How will we assess these and prepare for these?
 - Classify strategies in terms of complexity. Which are the backups? Which are the higher risk strategies?
 - How will the highest level decision making (identification of sampling hotspots, identification of sampling hotspots) consolidate input from HOPS/ESSE, ROMS, MANGEN? What is the time scale for the input to adaptive sampling strategies from the Ecologists?
 - What are the most important parameters to allow to be defined or to adapt during the experiment. Which parameters can/should we fix in advance?
- 1:15 Discussion/determination of performance metrics for science and system hypotheses. What are the different kinds of metrics we need? What are metrics to demonstrate strategies for use in future experiments?
- 1:45 Design of experiments to test and compare strategies/methods. Include range of sure-win experiments and more ambitious experiments.
- 2:45 Break.
- 3:00 Infrastructure. What's being done (software, experiments, integrations) and where are the holes? How will data be passed around appropriately? How much observational data will be used in glider coordination strategy? Ensure that all data collected is stored for post-processing and analysis.
- 3:45 Summary meeting by members of the ET. In parallel, working group meetings on above topics.
- 4:30 Break.
- 4:45 Continued discussions as needed.
- 5:30 Adjourn.

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AOSN project participants:

Ralf Bachmayer (Princeton)
James Bellingham (MBARI)
Pradeep Bhatta (Princeton)
Paul Chandler (MBARI)
Yi Chao (JPL-NASA)
Chad Coulliette (Caltech)
Eddie Fiorelli (Princeton)
Dave Fratantoni (WHOI)
Josh Graver (Princeton)
Francois Lekien (Caltech)
Naomi Leonard (Princeton)
Pierre Lermusiaux (Harvard)
Sharan Majumdar (U. Miami)
Allan Robinson (Harvard)
Clancy Rowley (Princeton)
Shawn Shadden (Caltech)
Igor Shulman (USM)
Hans Thomas (MBARI)

Other attendees

Shree Khare (Princeton)
Juan Melli-Huber (Princeton)
Sujit Nair (Princeton)
Derek Paley (Princeton)
Rodolphe Sepulchre (U. Liege/Princeton)