International Ocean Colour Science Meeting 2015

Advancing Global Ocean Colour Observations

Splinter 7:
Advances in Hyperspectral Remote Sensing Science

Co-Chairs:

Part I - Kevin Turpie (UMBC GSFC), Cecile Rousseaux (USRA NASA)
Part II - Maria Tzortiou (CUNY), Emmanuel Boss (Univ of Maine)
Part III - Michelle Gierach (NASA JPL), Sherry Palacios (BAERI ARC)

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Splinter Agenda:

Part I: Hyperspectral Remote Sensing Technology for Aquatic Environments

08:45-08:50 Introduction and overview Cecile Rousseaux (USRA, NASA GSFC)
08:50-09:10 Hyperspectral atmospheric correction Bo-Cai Gao (Naval Research Lab)
09:10-09:30 IOP and derived products from hyperspectral measurements. Steve Ackleson (Naval Research Lab) 09:30-09:45 Hyperspectral datasets for algorithm development Kevin Turpie (UMBC)

Part II: Hyperspectral Science and Applications for Shelf and Open Ocean Processes

09:45-10:05 Hyperspectral ocean colour imagery and applications to studies of phytoplankton ecology Astrid Bracher (Alfred Wegener Institute)
10:05-10:25 Hyperspectral remote sensing and applications to studies of the oceanic carbon pump David Siegel (UCSB)
10:25-10:45 Benefits and challenges of applying hyperspectral ocean colour imagery to monitor and understand ecological global and synoptic response to climate change Mike Behrenfeld (Oregon State U.)
10:45-11:00 Coffee Break

Part III: Hyperspectral Studies of Coastal and Inland Waters

11:00-11:20 Hyperspectral remote sensing and application to phytoplankton biodiversity Stewart Bernard (CSIR) 11:20-11:40 Coral reef colour: Remote and in-situ hyperspectral sensing of reef structure and function Eric Hochberg (BIOS)
11:40-12:00 Remote sensing of water quality: Can hyperspectral imagery improve public health? Clarissa Anderson (UCSC)

Key issues

1) How will hyperspectral data help to address the driving science questions in your sub-discipline that will guide your community in the coming decade?

2) How does 'scale' (e.g., spectral, spatial, and/or temporal) affect your ability to address these science questions? What is the smallest measurement 'scale' needed to address your science?

3) What are the common challenges across sub-disciplines in working with hyperspectral data?

4) How do we coordinate and integrate common algorithm development efforts?

5) Are there any observational or programmatic gaps across the planned hyperspectral missions?

6) What other space-based measurements or modeled data, done in parallel to hyperspectral measurements, would you like to have to obtain more out of ocean color?