

OCEAN OPTICS XXIV

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<https://oceanopticsconference.org>

Wednesday, October 10

Poster Session 3

16:00–18:00

Poster 111

ESTIMATING SIZE-FRACTIONATED CHLOROPHYLL WITH SATELLITE OCEAN COLOR IN THE CALIFORNIA CURRENT

Satellite-detected ocean reflectance contains information on optically active substances in the surface layer of which the concentration of chlorophyll-a (Chla) is usually dominant in typical oceanic environments. When the “mean” spectral remote sensing reflectance $R_{rs}(\lambda)$ corresponding to the Chla level is removed, the remainder, i.e. the reflectance anomaly (RA), is expected to provide clues about secondary bio-optical properties such as the concentration of colored dissolved matter but also the differences in phytoplankton pigmentation and/or particle size-structure. We evaluate the potential of satellite-detected RA from MODIS-Aqua (2002-2017) and VIIRS (2012-2017) imagery in estimating in situ size-fractionated Chla in the California Current Ecosystem.

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