OCEAN OPTICS XXIV

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Thursday, October 11
Poster Session 4
10:30–12:00

Poster 32

MATCHUP DATA BASE FOR SENTINEL-3 OLCI OCEAN COLOUR PRODUCTS VALIDATION

Continuous monitoring and validation activities of Ocean Colour products from Sentinel-3 OLCI are required to provide to users accurate estimation of the accuracy and the limitations of the data provided. Comparative analysis using in situ measurements thus needs to be performed continuously alongside products delivery. As a tool supporting validation activities, a Matchups Data Base (MDB) builder was set up to provide, on a monthly basis, netCDF files containing matching OLCI Ocean Colour Level2 extracts and in situ quality checked data, from MOBY (Marine Optical BuoY) (Clark et al., 1997) and AERONET-Ocean Colour (Zibordi et al., 2004) sites, which provide continuous water radiometric measurements, useful for the validation of the OLCI water reflectance product. These monthly netCDF files contain both original data from OLCI full resolution products, extracted on the basis of a 25 by 25 pixels window, centred over in situ stations, and in situ measurements. In addition, for OLCI data, Remote Sensing Reflectance, corrected for angular effects through Bidirectional Reflectance Distribution Function (BRDF), is provided. For AERONET-OC, where there is discrepancy in central wavelengths between AERONET's and OLCI's bands, a bandshifting correction (Mélin et al., 2015) is applied. MDB NetCDF files are accompanied with a Python module, used for reading data and providing statistics and plots for products validation, using a predefined set of filtering criteria for matchups (Bailey and Werdell, 2006) as well as user-defined criteria. Further development will include also matchups for chlorophyll and suspended matter concentrations, as well as Inherent Optical Properties from other sources.

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