



## **Radiometric characterization of OLCI for European waters**

Marco Bracaglia (1,2), Vittorio Ernesto Brando (1), Gianluca Volpe (1), Simone Colella (1), Mario Benincasa (1), Vega Forneris (1), Flavio La Padula (1), and Rosalia Santoleri (1)

(1) Istituto di Scienze dell' Atmosfera e del Clima, Via Fosso del Cavaliere 100, 00133, Roma, Italy, (2) Università Parthenope, Scienze e Tecnologie, Italy (marco.bracaglia@artov.isac.cnr.it)

OLCI (Ocean and Land Colour Instrument), the European imaging spectrometer mounted on the Sentinel 3 satellite, was launched in January 2016. OLCI L2 data by EUMETSAT is used for the operational production of L3 data within the Copernicus Marine Environment Monitoring System (CMEMS) since October 2017.

We will present the radiometric characterization of reprocessed OLCI data (IPF v2.23) carried out within CMEMS, based on reflectance data acquired in situ as well as with other satellites.

In this study, in situ radiometric data obtained at the AERONET-OC stations located in the Mediterranean (Venise), Baltic (Gustav Dalen and Helsinki) and Black Seas (Galata and Gloria) were used. The preliminary results for the in situ matchup analysis show an overall overestimation of the remote sensing reflectance measured from OLCI across the whole spectral range for all the stations, with just some exceptions. The analysis for the Mediterranean shows a good correlation between the green bands. In the Black Sea the blue and green bands show a good correlation, while in the Baltic none of the bands seems to show a good agreement.

OLCI radiometric data was then compared with the CMEMS multi sensor merged regional products (MODIS-AQUA + VIIRS) for the Mediterranean and Black Seas, and from MODIS-AQUA regional products for the Baltic Sea. Statistics are computed for the concurrent time series on the data acquired in each basin in the same day. At the time of writing NASA has just released the reprocessed data for MODIS-AQUA and VIIRS (R2018.0). The analysis that will be presented at the conference will be based on these new data.