

# Consiglio Nazionale delle Ricerche ISMAR - Istituto di Scienze Marine Sede Secondaria di Roma Via Fosso del Cavaliere 100 00133 Roma, Italy Tel +39 06 45488634 Fax +39 06 45488291 direzione@ismar.cnr.it C.F. 80054330586 - P.IVA 02118311006



## Seminar

# Javier Concha Research Fellow CNR-ISMAR

11:30 Thu 13 Feb 2020 - Aula IB09

# Title

Assessing differences on uncertainty estimates introduced by match-up protocols\*

Javier Concha<sup>1</sup>, Vittorio Brando<sup>1</sup>, Marco Bracaglia<sup>1</sup>, Simone Colella<sup>1</sup>, Mario Benincasa<sup>1</sup>, Kevin Ruddick<sup>2</sup>

<sup>1</sup> Consiglio Nazionale delle Ricerche (CNR – ISMAR), Roma, Italy <sup>2</sup> Royal Belgian Institute of Natural Sciences (RBINS), Brussels, Belgium\*

### **Abstract**

Multiple approaches have been used by the Ocean Colour community for validating satellite-derived products using in situ data since a standard, one-size-fits-all protocol does not exist. This is an accepted and understandable fact due to the variety of factors influencing the validation methodology such as spatial resolution (e.g. 10 or 1000 meters), kind of waters (e.g. coastal or ocean waters), the proximity of the platform to land, to name a few. However, most of these protocols are derived from mainly two approaches, one suggested by Bailey and Werdell (2006) and one suggested by Zibordi et al. (2009). The question remains what sort of information is been added or missed when choosing one over the other. In this work, a common dataset of matchups for the validation of S3A/OLCI data was tested to obtain the quantitative differences for the different approaches. Data from AERONET-OC and the PANTHYR system was chosen as the in situ data. The results show that Bailey and Werdell (2006) produces more matchups due to its more relaxed filtering criteria compared to the more strict filtering criteria of Zibordi et al. (2009) and that both methods yield comparable statistics in the long term.