

Interactive comment on “Comparative analysis of the multi-sensor global ocean colour data record” by S. Djavidnia et al.

Anonymous Referee #2

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General comments The manuscript entitled “Comparative analysis of the multi-sensor global ocean colour data record” by S. DJAVIDNIA, F. MELIN, and N. HOEPFFNER presents a comparison of individual ocean color sensors records onboard a series of earth observing satellites. The discussion of the global properties of the independent data set is thorough and one of the main conclusions (and the strength of the manuscript) is that the agreement amongst remotely sensed Chl-a is better than what is found between SeaWiFS and in situ estimates. Additional evidence is that the above convergence between satellite data records is significantly modulated on a regional and seasonal basis which is a very interesting find and the result of accurate work by the authors. Perhaps the way in which this evidence is dealt with is a weakness of the manuscript because it is hard for the reader to grasp how this discrepancy between satellite data records results from a combination of different factors (sensors, coverage,

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viewing geometry algorithms and water type). The possibility that MERIS data significant difference from both SeaWiFS and MODIS is indicative of weaker performance should also be included

Specific comments Fig.2 deserves further discussion. In particular although the mode (0.35) is the same for the 4 sensors the difference in percentage is large which opens some questions.

Technical corrections Pag 1614 line 10 remove “average” as it is included in “statistics” Pag 1614 line 18 replace Spectrometer with Spectroradiometer Pag 1645 Fig 2 hard to detect the colors of the bar plots outlines Pag 1652 and 1653 Figures 9 and 10 have an unfortunate choice of colors: too many similar blues! Figure 9 caption 3rd line needs “half” between “filled” and “circle”

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