**Impact of the temporal binning algorithm on ocean color products: application to the SeaWiFS time period.**

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The assessment of the seasonal, inter-annual, and long-term trends of the inversed ocean color products of surface oceanic waters requires temporal binning algorithms (TBA). The impact of the TBA on the remote sensing reflectance, *R*rs, and chlorophyll-a concentration, *Chl*, spatio-temporal patterns are examined at global scale over the SeaWiFS time period. Three different ways of averaging (arithmetic, geometric, and maximum likelihood) and three bio-optical algorithms (OC4v6, CIA, and GSM) have been specifically considered. The main objectives of this study are **i)** to evaluate the temporal averaging uncertainty introduced by selecting the monthly *R*rs instead of the daily *R*rs to generate monthly *Chl* products; **ii)** to evaluate if this TBA related uncertainty is algorithm dependant; and **iii)** to assess the impact of temporal binning algorithms on the long term trends.

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