

Interactive comment on “Simultaneous determination of aerosol optical thickness and water leaving radiance from multispectral measurements in coastal waters” by Chong Shi and Teruyuki Nakajima

Anonymous Referee #1

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This work developed an algorithm for the simultaneous retrieval of aerosol optical thickness (AOT) and normalized water leaving radiance (nLw) by using multispectral satellite measurements. Authors used a coupled atmosphere-ocean radiative transfer (RT) model combined with a oceanic bio-optical module as the forward RT simulation. Then they used an optimization approach by adjusting retrievals to fit with multispectral observation in an iterative manner. The accuracy of the algorithm is evaluated by comparing retrievals with products collected from 8 AERONET-OC sites and products from MODIS standard atmospheric correction (AC) scheme. This work presents great im-

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provement in the accuracy of AOT and nLw. However, authors did not mention the computational efficiency of their iterative algorithm compared to MODIS AC scheme. Overall, this manuscript is well written and straightforward to follow. This manuscript is recommended for publication in the Atmospheric Chemistry and Physics after minor revision.

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