

Interactive comment on “Remote sensing of aerosol properties from multi-wavelength and multi-pixel information over the ocean” by Chong Shi et al.

Anonymous Referee #1

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General Comments:

The authors report a new aerosol retrieval algorithm to retrieve the aerosol properties over ocean with multi-wavelength and multi-pixel observations. The algorithm is well tested by both synthetic measurements and real measurements considering different water and aerosol conditions. The new algorithm is very robust, and the aerosol retrievals are generally better than those of the conventional single pixel method. The manuscript is well written and scientifically sound, therefore, I think these results merit publication.

Specific comments: 1. P6L5 I think your aerosol model only includes three compo-

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nents, i.e., fine, sea salt, and dust. What do you mean using the combined with an internal mixture? Is this the fine particle? Could you clarify this? 2. P6L9 Aerosol size parameters for each aerosol component or each particle? 3. You always say AOT values for each particle, but I do not think AOT is for each particle. 4. P7L29 what do you mean the larger errors? Compared to what, single pixel method or fine aerosol? Please clarify it. 5. P11L2 indicated -> demonstrated? 6. P11L7 Could you explain why the fine AOTs of CAI are lower than those of the MODIS? 7. P11L26 Do you think the statement of overestimate is suitable for this case? What is your criterion? Do you know the real values?

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