

Interactive comment on “Advanced characterization of aerosol properties from measurements of spectral optical depth using the GRASP algorithm” by B. Torres et al.

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Interactive comment on “Advanced characterization of aerosol properties from measurements of spectral optical depth using the GRASP algorithm” by B. Torres et al. F. Dulac (Editor) francois.dulac@cea.fr Received and published: 18 January 2017

I find your methodology interesting and well explained but I wish to question the 0.3-0.9 range of $\tau_{\text{a}}(440)$ values for direct tests: on one side 0.3 is already a significant AOD, significantly larger than the average value in many AERONET stations, especially for places like Lanai where sea-salt is controlling the AOD; conversely, 0.9 does not cover the range of high values regularly observed at stations under desert dust influence;

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using such a limited range yields the reader to the conclusion that your algorithm is not consolidated at moderate and very high AOD; I would therefore suggest to include both a lower test value (e.g. 0.1) and a larger value for dust only (e.g. 1.5) to offer a better assessment of your algorithm ran

[We have added 4 new aerosol cases: GSFC0 and LANA0 with \$\tau\(440\) = 0.1\$ and SOLV4 ZAMB4 with \$\tau\(440\) = 1.5\$ \(low and large aerosol optical load\).](#)

Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-334, 2016.

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