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Atmospheric Chemistry and Physics Discussions

Interactive comment on "Comparing multiple model-derived aerosol optical properties to collocated ground-based and satellite measurements" *by* Ilissa B. Ocko and Paul A. Ginoux

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This is a nice study of various aspects of modelled aerosol that may be measured remotely. Such measurements however tend to be sparse and this introduces sampling issues. Although the authors say they use collocated observations, I found no explanation of their methodology. Possibly, this collocation is purely spatial? However, temporal collocation is known to have a big impact as well: http://www.atmos-chem-phys.net/16/1065/2016/

For instance, the CALIOP dataset consists of monthly averages, but most locations will

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only be visited a few times during a month. Also, absorptive AOT can only be reliably measured by AERONET when AOT is high. In both cases, comparing normal monthly model averages to the observations would introduce sampling artefacts.

Maybe the authors can provide a bit more detail on how they dealt with such problems?

regards, Nick Schutgens

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