Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2017-838-SC2, 2017 © Author(s) 2017. This work is distributed under the Creative Commons Attribution 4.0 License.



## Interactive comment on "Two decades of satellite observations of AOD over mainland China" by Gerrit de Leeuw et al.

## B. S. Grandey

benjamin@smart.mit.edu

Received and published: 20 October 2017

Dear Dr de Leeuw and co-authors,

May the MODIS AOD seasonality be mislabelled in Fig. 11? Comparison with the ADV AOD seasonality (left-hand column), CALIPSO AOD seasonality (Fig. 5 of manuscript), and Fig. 3 of Luo et al. (2014, doi:10.1002/joc.3728) suggests to me that this may be the case. In particular, the seasonality of high AOD over the Taklamakan Desert, BTH and other regions appears to be one season out of sync. For further details, please see the annotated figure included in this comment.

It is of course possible that these differences in seasonality between the different AOD products are genuine. But I suggest checking the code used to make Fig. 11, just in

C1

case a mistake has been made.

Please do let me know if I have misunderstood anything.

Thank you,

With kind regards,

Benjamin

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2017-838, 2017.

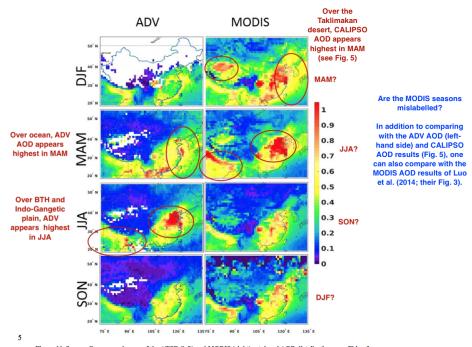


Figure 11. Seasonally averaged maps of the ATSR (left) and MODIS (right) retrieved AOD distribution over China for the years 2000-2011: winter (DJF), spring (MAM), summer (JJA) and autumn (SON). The AOD colour scale is on the right.

Fig. 1. Copy of Fig. 11 with annotations added.