# Comment on amt-2022-95

Alexei Lyapustin (Referee)

Referee comment on "The new MISR research aerosol retrieval algorithm: a multi-angle, multi-spectral, bounded-variable least squares retrieval of aerosol particle properties over both land and water" by James A. Limbacher et al., Atmos. Meas. Tech. Discuss., https://doi.org/10.5194/amt-2022-95-RC5, 2022

This is a very good study describing research algorithm development for MISR. The standard MISR over-land retrieval has a long-standing problem of underestimating AOD at high AOD because the EOF algorithm fails when the surface contrast disappears at high AOD. This development uses prescribed MAIAC BRDF dataset over land (similar over ocean) to significantly improve the RA aerosol characterization at high AOD.

I recommend publication after the authors address my specific mostly editorial comments which I provide in the annotated manuscript. A minor re-structuring would also benefit this paper improving readability and understanding.

Alexei.

Please also note the supplement to this comment:
https://amt.copernicus.org/preprints/amt-2022-95/amt-2022-95-RC5-supplement.pdf