Comment on amt-2022-284
Anonymous Referee #2

The authors presented a simple sub-micron fraction versus fine mode fraction linear equation that makes it possible to better understand the well recognized empirical result of SMF being greater than FMF. The paper is well-constructed, and the statistical method is serious analyzed and has scientific value. Overall, publication is recommended after addressing the following minor revisions.

- Line 91: “governed by that relationship”, Maybe it would be better for the reader to understand the paper by stating in the text which relationship is governed by.
- Table1 and line 208-212: for the classification of aerosol types at AERONET sites, maybe some citations for aerosol types needed here as a basis for the classification of different aerosol types.
- Figure 3: Maybe it should be “1 – \( \varepsilon_c - \varepsilon_f \)” instead of “1 – \( \varepsilon_f \)?
- Line 213: First line indent.
- Line 244: First line indent.
- Line 253, 261 and 273: figure S1 was not found in the paper.
- Line 275: As well, Figure S2 was not found in the paper.
- Figure A1 caption: maybe it should be “\( \tau_f vs \tau_{f'} \)” instead of “\( \eta' - \eta vs \delta \)”?