

Interactive comment on “Multi-sensor Aerosol Products Sampling System (MAPSS)” by M. Petrenko et al.

Anonymous Referee #2

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The paper "Multi-sensor Aerosol Products Sampling System" by Petrenko, Ichoku and Leptoukh describes a very helpful tool to analyse synergies between different satellite aerosol products. I am convinced that this system which ensures also upgrading statistics of the underlying growing datasets will facilitate multifold applications and help many scientists focus on their specific research topic rather than deal with all the issues of data handling.

Evidently, the paper does not describe exciting new science - but the tool / system will help to achieve new science on aerosol retrievals and their validation / inter-comparison across different sensors and algorithms.

1. Does the paper address relevant scientific questions within the scope of AMT? clearly the tool described falls into the focus of AMT and is relevant to aerosol retrieval re-

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search.

2. Does the paper present novel concepts, ideas, tools, or data? The tool which allows a standardized analysis of multiple sensor products is innovative.

3. Are substantial conclusions reached? Example applications are described in the place of scientific conclusions to demonstrate the potential added value of the tool.

4. Are the scientific methods and assumptions valid and clearly outlined? The statistical analysis concept reflects state of the art in aerosol retrieval validation.

5. Are the results sufficient to support the interpretations and conclusions? No new scientific results are described, but the important extension of the MMAPSS tool for multi-sensor use.

6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)? The statistical parameters are precisely defined and clearly explained in sufficient detail.

7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution? Earlier validation studies / concepts in the community as well as the original MAPSS system are referenced.

8. Does the title clearly reflect the contents of the paper? yes, indeed

9. Does the abstract provide a concise and complete summary? all key aspects of the paper are summarized in the abstract.

10. Is the overall presentation well structured and clear? yes, the structure supports a clear understanding of the tool presented.

11. Is the language fluent and precise? yes

12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used? yes

13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated? no

14. Are the number and quality of references appropriate? yes

15. Is the amount and quality of supplementary material appropriate? -

Minor comments for minor revision a) the very important warning against direct use of the potential oversampling in the MAPSS AERONET dataset (p. 918, l. 16-22) is very important and should also be repeated in the conclusions b) tab 3 and 4 have only a very brief explanation in the text, which could be extended (p. 921, l. 1-12) c) p. 923 / l. 8: is "reflectance" TOA or surface, here? d) fig. 9 caption - talks of top/botton image, should be left/right

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 909, 2012.