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Atmospheric Measurement Techniques Discussions

Interactive comment on "The CALIPSO Version 4 Automated Aerosol Classification and Lidar Ratio Selection Algorithm" *by* Man-Hae Kim et al.

Anonymous Referee #3

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This paper introduces CALIPSO V4 updates in the L2 aerosol subtyping algorithms, investigates the resulting AOD differences between V3 and V4, and compares CALIOP AOD with AERONET and MODIS. This paper adequately summarizes information on the updates of the algorithms and characteristics of the products, includes useful information on them, and is well written. Thus this paper will be published after some minor revisions.

(1) Title of this paper seems to be inadequate. The key topic of this paper is to evaluate the algorithm to create the Version 4 L2 subtyping products by comparing with Version 3 products. The current title rather gives us impression that this study developed the algorithm .

(2) "Section 2" Section 2 seems to be too long and may mislead. The key part of this

paper is thought to be section 3 (and section 4), however, section 2, which explains the updates of the algorithms and products and is not essential to this paper, looks the key of this paper.

(3) minor comments and typos P2 L6: "(AOD" => (AOD)

P11 L20: "aa" => "a"

P14 Fig 9 (b): X-axis of Fig. (b) seems different from the other figures (a and b).

P14 L7 "releasereleases" => release

P18 L13: "Based on an assumed external mixture of ∼∼∼(65:35 by surface area)" What is 65:35? You should explain more on this point.

P21 Table 4: This table is very complicated and it is difficult to understand it. You need to explain more to let readers understand this table.

P24 L15: "WhileWhile"

P32 Table 8 :Are the values of the MODIS (Land) negative? (e.g., 0.069 => -0.069)

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