

Interactive comment on “Large-eddy simulation and stochastic modelling of Lagrangian particles for footprint determination in stable boundary layer” by Andrey Glazunov et al.

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Response to Anonymous Reviewer #2

Authors are grateful to the referee for a high assessment of the article. Accordingly to the comments following changes were made:

1) *Page 1, line 18. Replace 'the near-surface flux' by 'the surface flux' because it's defined for $z=0$ (cf. "L is the Obukhov length at the surface" on page 16, lines 1-2).*

It was done.

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2) *Page 1, lines 18-19. Replace 'denoting the ensemble averaging' by 'denote a time/space average'.*

Agree. Accordingly to comments of Reviewers #1 and #2 this paragraph was rewritten (see our response #1). In new version of manuscript we avoid ensemble averaging notation in Introduction.

3) *Page 3, line 24. Although abbreviations 'LSM' and 'RDM' are defined in the abstract and later on page 7, they should be also introduced in the text on first occurrence.*

In new version of the paper the abbreviations 'LSM' and 'RDM' are introduced on page 2, lines 12-14.

4) *Figures 1-10. I recommend use color version of the plots (similar to Fig. 11) instead black and white.*

Figures 2-6 and 8,10,11 (in previous version 1-5 and 7,9,10) were colored. Figures 7 and 9 contain a few number of curves, so they remain to be black and white.

Additionally, the typo was corrected in Eq. (49). (ξ_t^p was replaced to ξ_3^p)

Corrected version of the paper is attached (see, pdf file in supplement).

Please also note the supplement to this comment:

<http://www.geosci-model-dev-discuss.net/gmd-2016-34/gmd-2016-34-AC2-supplement.pdf>

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