

Interactive
Comment

Interactive comment on “A novel model evaluation approach focussing on local and advected contributions to urban PM_{2.5} levels – application to Paris, France” by H. Petetin et al.

Anonymous Referee #1

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In fact, the following comments/remarks are just suggestions:

General comments

This is a very well written, and impressive paper. A very nice balance between observations and modelling, and a novel approach for model evaluation based on the distinction between advected and local contributions. The reference list is impressive

Specific comments.

-The comparison with observations is/seems to be based on the model results as a mean value over the lowest layer of 40 m. In principle, it would be possible to consider

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a vertical gradient-due to dry deposition- in the lowest layer. Would such an approach have any impact on the results? -Page 6405, line 14-20. It is clear that going from dailt values to monthly mean will reduce the uncertainty. But, is there any indication of the cause of this. Is this due to (local) emission variability or meteo-variability/ -Page 6407 Chosen is a minimun BL height of 150 m over urban areas. Is there any basis for this estimate, might its be related to an average effective building height and building density. As an example: would it be 150 m over Hong Kong also/

Technical comments:

Page 6394, line 9 Leave out etc- suc as is sufficient, or replace etc with text to state what you mean Page 6394 line 29 writes: regional background adds to the urban increment. I fail to understand this, the urban increment is due only to local phenemena, isn't it?

Interactive comment on Geosci. Model Dev. Discuss., 6, 6391, 2013.

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