

Interactive comment on "Ensemble Predictions of Air Pollutants in China in 2013 for Health Effects Studies Using WRF/CMAQ Modeling System with Four Emission Inventories" *by* Jianlin Hu et al.

Anonymous Referee #2

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Review of Hu et al.

This paper concerns a study of the performance of forecasts of air pollution in China, with focus on a large number of sites. The description of the methods and results is comprehensive. The results suggest that the method has potential to forecast air quality conditions in China and, likely, elsewhere. The paper should thus be of interest to the air quality scientific community.

However, as it stands the paper is not suitable for publication in ACP. There are two reasons for this (I note another reviewer identifies these reasons too): (i) The writing of the paper needs improving, the English needs to be checked; (ii) I cannot see much

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detail of how the study links to health concerns, even though health is in the title of the paper. There is discussion about the application to health issues in the conclusions, but this is cursory and has to come earlier in the paper.

The authors should address these two points before publication of the paper in ACP. Furthermore, the authors should address a number of specific issues (not exhaustive), mainly concerning clarification of the text, examples of which I detail below.

Specific comments

L. 135: Indicate here what you will discuss in each section of the paper.

L. 349: It would be helpful to remind the reader of the location of the stations, instead of just using the acronym.

Table 3: Should the weights add up to 1? They do not for, e.g., for the annual case.

Table 4: Could authors condense the information? For example, at how many stations is the ensemble prediction better or worse?

Figure 2: The authors need to explain more in the caption what the lines represent. For example, there are two solid and dotted lines in the panels – do they represent a standard deviation about a mean?

Figure 3: Indicate in the caption what the horizontal and vertical panels represent. Same for figures 4, 5 and 7.

Interactive comment on Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2017-182, 2017.