

Interactive comment on “Impacts of Meteorological Uncertainties on the Haze Formation in Beijing-Tianjin-Hebei (BTH) during Wintertime: A case study” by Naifang Bei et al.

Anonymous Referee #2

Received and published: 16 September 2017

This paper evaluates the impact of uncertainties in aerosol simulations due to the meteorological initial conditions in WRF-Chem. The study appears to be thorough and the subject is timely. I am happy to recommend publication in Atmospheric Chemistry & Physics subject to minor revisions.

Minor Comments: The paper would benefit from additional proof reading. In particular, the abstract could be clarified and improved.

Line 16: “have shown” suggests previous work – I don’t think that is what is intended here? Line 20-23: This seemed confusing. What does the 30% refer to? Line 24: Do you mean “evaluation” rather than “implementation” – the uncertainties are to do with

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analysis, not with actually doing something on the ground. Line 26: Needs rephrasing: we cannot avoid the impact, but we can take it into account.

Line 98: Please give a summary of the method so that the reader can get a sense without looking up the references.

Line 181: the “clod” clean air??

Line 374 and 375: rephrase, as for Line 26.

Fig 2: Could you show the spread of the ensemble initial conditions, for example with a boxplot?

Fig 3: This is rather busy. I think a legend and possibly splitting the graph by geographical area would help.

Interactive comment on Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2017-698>, 2017.

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