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ACPD 14, C2643–C2644, 2014

> Interactive Comment

Interactive comment on "Technical Note: On the use of nudging for aerosol-climate model intercomparison studies" by K. Zhang et al.

Anonymous Referee #1

Received and published: 22 May 2014

This technical note on the use of nudging in studies of aerosol impacts on clouds and climate in global climate modeling provides an important methodological refinement with a wide range of applications. The manuscript presents the issues and results clearly. A few minor additions could help provide better context for a broad range of studies:

1. The authors apply nudging as the only data assimilation technique, and would benefit from reflecting on the applicability of the findings to other assimilation techniques widely employed in climate and aerosol modeling. Are any of the qualitative findings inherently specific to nudging, or would they be expected to perform similarly for variational assimilation approaches?



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Interactive Discussion

Discussion Paper



2. Would a similar strategy apply to the investigation of aerosol indirect effects through ice clouds at regional and local scales?

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 10311, 2014.

Interactive Comment

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14, C2643-C2644, 2014

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