Geosci. Model Dev. Discuss., https://doi.org/10.5194/gmd-2017-297-RC2, 2018 © Author(s) 2018. This work is distributed under the Creative Commons Attribution 4.0 License.



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Interactive comment

Interactive comment on "Overview of the Meso-NH model version 5.4 and its applications" by Christine Lac et al.

Anonymous Referee #2

Received and published: 12 March 2018

The authors have done a very decent job of summarising the Meso-NH model's many configurations and applications. It appears to be very thorough, is written clearly and reasonably easy to follow. I just have a few minor points of clarification:

- 1) section 2.1: with the two-way interactive nesting, what frequency of updating do you typically use both to provide the boundary forcing for the "son" and also the upscale relaxation for the "father"? These details should be given in the examples cited later in the paper.
- 2) section 3.6: are there any issues when nesting this anelastic model inside an NWP model (such as ARPEGE) than uses a different equation set? For example, is it even possible to match completely the temperature, pressure, height and density profiles? Also, how do you choose the reference profile that is needed under the anelastic ap-

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proximation in these cases?

3) section 4.3: this section is slightly confusing in that it opens with "The convection scheme available in Meso-NH is KFB..." but then goes on to say there is in fact another, preferred scheme, PMMC09. It would be much clearer to say at the outset how many schemes are available and then to be clear too about which scheme is preferred in what configuration (be it resolution or application)

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