

Interactive comment on “Simulating orographic rainfall with a limited-area, non-hydrostatic atmospheric model under idealized forcing” by A. Pathirana et al.

A. Pathirana et al.

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We thank the referee for his thorough and constructive review. Two comments that can be addressed without changing the main manuscript are responded below. Technical corrections and some others which needs rearranging paragraphs etc., will be incorporated into the final revised article.

1. Responses

As suggested by the referee we have conducted two further simulations with mountain heights 3km and 4km. The accumulated rainfall distributions were produced and

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images can be downloaded from the links given below.

These simulations confirm the observation that the peak rainfall amount increase with the increasing mountain height. Further the rainfall profile over the mountain becomes thinner, making the second peak on the lee-side more prominent. There are no significant differences in rainfall patterns other than those.

The mountain widths in figure 5 (the control run) and figure 6 (H-a, H-b) are same (b=16km).

2. Downloading the images

Please access

1. image-1:3k mountain height <http://221.186.14.54/assela/acp/3k.gif>
2. image-2:4k mountain height <http://221.186.14.54/assela/acp/4k.gif>

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 5625, 2004.

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