

Interactive comment on “Discriminating raining from non-raining clouds at mid-latitudes using multispectral satellite data” by T. Nauss and A. A. Kokhanovsky

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Thank you very much for your comments.

1.) Considering a more general validation we have almost finished now a comparison study including more than 200 MODIS scenes between January and August 2004. Within this period, many scenes show almost now convective regions but several stratiform raining cloud areas. The results for these scenes, which will be published in the near future, are similar to the ones in the current paper. For future applications it may be a good idea not to use one single discrimination function but assign rainfall probabilities based on e. g. the data of fig. 1.

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2.) You are right that the statistical validation tests are not completely presented. In total we find 204,349 raining and 732,855 non-raining pixels in the satellite scene leading to a total number of pixels of 937,204. Considering the significance, we are not aware of any method showing a significance of dichotomous tests like POD, POFD etc. Therefore we used the convective scheme to allow a rough estimation of the performance. The important aspect for the lowered resolution case is not a significant increase of the test results but the fact that results reach almost their optimum value. If we perform the same tests using only the convective scheme, the results increase, too, but the Bias, POD and CSI still differ by more than 20

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