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Hydrology and Earth System Sciences Discussions

Interactive comment on "Analysis of predicted and observed accumulated convective precipitation in the area with frequent split storms" *by* M. Ćurić and D. Janc

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Major comments

The investigation presented in this manuscript demonstrates the capability of the cloud-resolving mesoscale model with excellent microphysics to calculate successfully shower precipitation over small catchments in the complex terrain. This paper is focused on the most complex case of split storms which can cause flash floods. The objective of this paper is important to hydrological community, because the split storms can unexpectedly produce large amounts of precipitation over one or neighbor catch-

ment. This is a big problem for hydrologists. The good agreement between observed and model accumulated shower precipitation from split storms as shown by the statistical analysis is the encouragement for hydrologists to use without doubt the results of such models for their analysis and predictions. On the other hand, this shows that the success in cloud modeling begin to bear fruits both to meteorologists and hydrologists.

Questions

Hydrologists know that the orography is very influential factor for flash flooding in small catchments. My questions to authors would be: have you performed experiments and corresponding comparisons under flat terrain condition? Are the agreements between model and observed precipitation sums would be better in this case? This manuscript need to contain some discussion on this topic. My opinion is that this manuscript gives both meteorologists and hydrologists an excellent tool for precipitation sum estimation. In such a way, one excellent job was done.

Please also note the supplement to this comment:
http://www.hydrol-earth-syst-sci-discuss.net/8/C4092/2011/hessd-8-C4092-2011-supplement.pdf

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