

Interactive comment on “Dominant processes of extreme rainfall-producing mesoscale convective system over southeastern Korea: 7 July 2009 case” by J.-H. Jeong et al.

Anonymous Referee #3

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This paper covers a topic relevant for natural hazards scope of NHESS and provides obdorminant processes of extreme rainfall which recorded over metropolitan area in Korea. The servational study explained in detail the cause and contributing factors of the extreme rainfall; that is, most of parts of the paper are devoted to the description of the structure and evolution of the extreme rainfall-producing mesoscale convective system. In this sense, this reviewer thinks that the present study presents a detailed description for extreme rainfall event. Thus, the paper can be published after minor revisions according to my comments in the following. 1) In introduction, authors should include previous studies, probably by comparing the present case study with the other MCS studies. For example, P 6468 Line 19-23 in this paragraph refer to the TS-MCS

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associated with stationary warm front, which may be a strong point with this paper. Authors should be compared with previous studies. 2) Section 2, please add the information how to use the surface observation data set. 3) Section 3.1, please remove the interpretation about cyclonic vorticity advection which could be inconsistence of this analysis. And the coupling between upper-level jet and low-level jet should be more interpreted. 4) Section 3.3, please add the interpretation why the authors investigated the upstream environment. 5) Section 4.1, Figure 10, the interpretation of back-building process is written well. However, the figure could not be shown clearly. The figure needs to be fixed. 6) Figure 5, hard to see geography on Fig. 5. Hard to distinguish theta-e and specific humidity. Please remove the line about specific humidity, if the contents would not be important.

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