

Interactive comment on “Microphysics parameterization sensitivity of the WRF Model version 3.1.7 to extreme precipitation: evaluation of the 1997 New Year’s flood of California” by Elcin Tan

Anonymous Referee #1

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The manuscript presents an evaluation study of WRF simulated precipitation using some surface observations. The five-day WRF simulations using 19 different cloud microphysical schemes are compared with surface precipitation measurements over 8 stations in California. As a pure model comparison study which is only based on a five-day precipitation event, I feel the spatial and temporal scales are too small in the experiment design to judge different cloud microphysical schemes, and the analysis in this study is inadequate to advance our understanding in model’s physics. Specifically, the manuscript lacks a conclusive assessment of the different MPs, as they behave quite diverse at different sites. Moreover, the simple model-observation comparisons

C1

without any process-level diagnostics in this study fail to shed any light on the essential differences between MPs. Therefore, I cannot recommend publication of this manuscript in GMD.

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C2