Natural Hazards
and Earth System
Sciences

Discussions

Open Access

Interactive comment on "Developing an effective 2-D urban flood inundation model for city emergency management based on cellular automata" *by* L. Liu et al.

F. Qiu

ffqiu@utdallas.edu

The manuscript proposed a CA based model simulating storm water runoff in urban settings. The paper was well organized and well written. The model proposed was both effective and efficient, and was validated by real storm events. I recommend the paper to be accepted with minor revision, as suggested below:

1. The author reviewed many other hydrological models and listed their drawbacks. Some of these models are CA. It was clear if the proposed model is better than other CA models, although there is comparison with physical process based model. 2. The

in-situ data calibration and validation is a unique part of the research. It was not clear how widely this technique is used in other studies. 3. In part 5(summary and discussion), the authors stated "This CA model is established primarily by using building corrected DEM data". 4. In the introduction part, paragraph 3, page 6176, line 14, the sentence is "Therefore, the requirements of these methods dot not fully meet the demand of city emergency management (Zhang and Pan, 2014)". I believe it should be "do not". 5. In the introduction part, paragraph 5, page 6177, line 10, the word "LOSFLOOD-FP" should be LISFLOOP-FP.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 2, 6173, 2014.