Interactive comment on “Coupled cellular automata for frozen soil processes” by R. M. Nagare et al.

Anonymous Referee #3

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This is an interesting and novel piece of work. The two comments that I have are as follows:

1. The complexity of the coupled CA-model is very high, with a lot of parameterisation. Is this level of complexity really necessary, and have the authors explored whether a simpler CA model would provide similar results? 2. There are underlying assumptions about the consistency in structure, bulk density and hydraulic conductivity down the profile that do not seem realistic. What is being modelled is in effect an idealised, homogenous soil that is simpler than the reality.

Interactive comment on SOIL Discuss., 1, 119, 2014.