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Nonlinear Processes in Geophysics
Discussions

Interactive comment on "Multistable Slip of a One-degree-of-freedom Spring-slider Model in the Presence of Thermal-pressurized Slip-weakening Friction and Viscosity" *by* Jeen-Hwa Wang

J. G. Spray (Referee)

jgs@unb.ca

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This is an interesting and well-structured paper. I have made minor edits via Adobe in the attached PDF document. Aside from these minor considerations, I do have a question concerning AUD (adiabatic-undrained-deformation). A steady-state scenario is typically not realized in natural slip (fault) systems because fractures and adjacent subordinate faults can drain the melt from the main interface, thus increasing friction once again. Does the author's model include this consideration? This also means that pseudotachylyte (solidified friction melt) thickness is typically not related to displacement. Again, does the model accommodate the possibility of such behaviour

and, if so, how?

Please also note the supplement to this comment:
http://www.nonlin-processes-geophys-discuss.net/npg-2017-17/npg-2017-17-RC1-supplement.pdf

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