

Interactive comment on “Connected flow paths as first order control on critical zone water flows: coincidence or self-organized optimality?” by E. Zehe et al.

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We thank Michael Roderick (MR in the following) for his thoughtful comments on the proposed paper. We agree that the proposed definitions of internal/ total energy and free energy in our paper ((Eq.1) and Eq. 5)) are not conventional and that the revised paper should clearly explain the link and the difference to classical approaches in textbooks. These definitions in the last version suggest that Eq. 5 can be inserted into Eq.1, this does as outlined by MR, not produce a meaningful term. We agree that this has to be fixed in the revised paper and thank again for. We want to stress that most of

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the critique points in MR review are, though being important, not relevant for the main findings of this study.

Please find the background and our response to the major comments of MRs review in the supplementary document.

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Please also note the supplement to this comment:

<http://www.hydrol-earth-syst-sci-discuss.net/9/C5966/2012/hessd-9-C5966-2012-supplement.pdf>

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