Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2019-588-RC1, 2020 © Author(s) 2020. This work is distributed under the Creative Commons Attribution 4.0 License.



Interactive comment on "A history of the concept of time of concentration" by Keith J. Beven

Anonymous Referee #1

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This paper seems to have two main purposes: first, it provides a historical overview of the concept of time of concentration. Second, it argues how this concept is misleading in its current definition. This seems to be a useful contribution, because (as the paper outlines), time of concentration has long been part of hydrology, but its use is often incorrect. The article is structured somewhat atypical, but the format works for me (though at times I was unsure where the paper was going). There is very little to disagree with in the paper and no new results are provided. Therefore, I think this paper can be published almost as is.

- The historical overview of past works is especially useful as past works are often forgotten now 1000s of hydrology papers are published annually. However, at times I was hoping that a more systematic overview (e.g. a table) of key papers was provided in addition to the story tying old papers together. However, I understand this may not be the purpose of a paper for this special issue (and more appropriate for a review

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paper).

- Can it somewhere be made clear if the outlined misunderstanding of the time of concentration underlies the big quantitative differences (i.e. 500%) that have been reported by Grimaldi 2012?
- L25: would it be useful to have a proper Wikipedia citation that also includes the time and date this page was accessed, because the Wikipedia page may change over time (for example due to this article) https://en.wikipedia.org/wiki/Wikipedia:Citing_Wikipedia

Line 370: replace "Berghuis" by "Berghuijs"

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