

Interactive comment on “Towards harmonization of image velocimetry techniques for river surface velocity observations” by Matthew T. Perks et al.

Anonymous Referee #3

Received and published: 7 November 2019

This paper compiled river surface velocity observations using image velocimetry techniques over eleven sites across Europe and one site in India. It describes method used in the data acquisition, pre-processing software/functions, and the hydro-geomorphic setting at each site to generate velocity measurement. It is exciting to see the new approach for determining flow velocity that can be executed even with a smart phone (Samsung Galaxy S7). I think that the work is valuable and interested in the hydrology community for the development of image-based techniques, which could be further applied in modeling and monitoring. However, it is not clear to me what contributions this paper offers. The abstract mentions inter-comparison and validation of the various techniques, but they were not actually performed, which seems to be missing a major component of the paper. The validation data exists for most cases, then why

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not present the resulting datasets in the form that is directly compared and validate, instead of the image clips? I am having a hard time grasping how the results of this paper can be used as benchmark datasets in the current form. Even if quantitative validation is addressed, the measurements are taken at specific time and location of the river (i.e. specific hydro-geomorphic setting), so it may not be comparable if someone uses different camera and processing technique at different time and/or location. I understand that the nature of the observation and approach is not suitable for generalization, but the paper in the current form doesn't seem to fit into the context of "towards harmonization of the techniques". Therefore, I recommend major revision at this time.

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2019-133>, 2019.

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