

Interactive comment on “A novel permanent gauge-cam station for surface flow observations on the Tiber river” by F. Tauro et al.

F. Tauro et al.

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Dear Editor,

We are particularly glad for your comment, where you perfectly highlight the potential of the approach and of the gauge-cam station we have installed in the Tiber River.

What is known in the literature as the LSPIV approach for river surface velocity estimation was introduced some years ago; however, in our opinion, we are still far from having a ready-to-use measurement protocol for many reasons. Indeed, several hardware and software drawbacks, such as optimal hardware configuration, illumination conditions, algorithms for object identification and velocity estimation, measurement uncertainty, and computational time, still need to be tackled.

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Only with a permanent station, it will be possible to forge a comprehensive video database that is rich enough to cover all possible testing conditions and to optimize algorithms and procedures.

The permanent station is also a precious testbed to be enriched with supplementary sensors, as you correctly underline, to provide additional information besides surface flow velocity. This integrated approach will hopefully lead us to an enhanced comprehension of the river flow dynamics.

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