

Dear Benjamin Purinton,

Thank you for submitting a new version of your manuscript entitled "Introducing PebbleCounts: A grain-sizing tool for photo surveys of dynamic gravel-bed rivers" to ESurf.

I have now received a second report from Patrice Carbonneau. He feels that the manuscript is much improved. Yet he reports a detailed list of small issues which need to be resolved before the paper can be published in ESurf. In particular, I do agree with him that a table summarizing the discussion about the relative performance of your approach would help to synthesize your message.

I have noted your resistance to take into account several of the comments raised by Pascal Allemand. Yet, I agree with his observation that the manuscript is difficult to follow in many places. ESurf is dedicated to a broad audience of scientists working on Earth surface processes. In its present version, the manuscript is closer to a technical report aiming at a more specialized community. Several points contribute to this feeling:

- the manuscript contains too many figures (18);
- it makes use of too many acronyms (GSD, SfM-MVS, MP, AIF, KMS, NMAD, ...),
- the level of sectioning is too high (8.3.1, etc...) and many of the section titles are inappropriate ('previous work on photo sieving', 'Motivations for new methods', '7.4.3. Results: Handlhed Image', etc... ).

Here are more specific comments:

- Figure 4 and 5 are certainly appropriate for a software manual. But they are not suitable for a journal like ESurf. I strongly advise you to move them into the supplementary information.
- Again, many of your section titles are inappropriate for a scientific journal. Here are a few examples: « 2. Previous work on photo sieving », « Motivation for new methods », « 4. Additional Data dimensions from point clouds », « 5. The algorithms »,... In many cases, you can solve this problem by suppressing these sections and merging them into a larger one with a broader title. As an example, section 2 and (maybe) 3 could be included as part of the introduction. Similarly, there is no need to divide subsection 6.3 (the title of which « images » is again quite clumsy) in 2 subsections. These 2 examples illustrate a more generic problem that you must address.
- The accumulation of field sites on Figure 14 and 15 is to the detriment of the message. You should restrict these figures to a couple of emblematic results illustrating your message, and use the supplementary information file to present the integrality of your results.
- Although the caption of figure 1 starts with « Conceptual », this figure does not provide any conceptual information. It merely illustrates the difference of results obtained using different methods.

In conclusion, I understand the need for details, but details are sometimes to the detriment of clarity. I therefore encourage you to submit a suitably revised version of your manuscript taking into account the remaining issues. Upon submission, I will need to receive a response file that lists each of the comments and describes how the manuscript has been modified (or not) in response to those comments.

I look forward to receiving your revised manuscript.

Sincerely yours,

Eric Lajeunesse