

Grain roughness controls on velocity and bed stress fields around a fully protruding obstacle in supercritical flow

Responses to Editor

Dear Dr. Schwanghart,

Thank you very much for your message and for letting us know that our manuscript has been accepted for publication in ESurf. We greatly appreciate your handling of the manuscript throughout the discussion and review process. We also understand the situation with the review duration and sincerely appreciate your communication and efforts during this stage.

We are very excited that the article will be published in ESurf. We have carefully addressed all the minor technical corrections listed in your decision letter, and all corresponding changes have been included in the revised manuscript.

Below, we provide a brief response to each point.

1) *In line 162, the left brackets are not needed before the equation numbers.*

Done. We removed the unnecessary left brackets before the equation numbers.

2) *Make sure to be consistent with using capital letters in headings (e.g. heading 4.2.). I suggest to use just a capital at the beginning of the heading.*

Done. We revised the headings throughout the manuscript for consistency and now use only an initial capital letter.

3) *Use a proper y-axis label in Fig. 11a, e.g. Probability density. The upper legend is not needed, if you use the current y-axis labels as labels for the panels. You may consider also quantifying the skewness in the caption or text to quantitatively describe how the distributions change. I believe that panel b) and c) are not needed as they add little to what is shown in a).*

Done. We revised Fig. 11 following your suggestions. The y-axis label in Fig. 11 has been changed to “Probability density”, the upper legend has been removed, and panels b) and c) have been removed. We also quantified the skewness in the caption/text to provide a quantitative description of how the distributions change.

4) *Make sure to make the Zenodo DOI available upon resubmitting your revised manuscript.*

Done. The Zenodo DOI has been added to the Code/Data availability section: <https://doi.org/10.5281/zenodo.20650590>.

5) *Table 1: Mesh-resolved (remove the blank in the third column).*

Done. We corrected the text in Table 1 by changing “Mesh resolved” to “Mesh-resolved”.

Thank you again for your guidance and for moving the manuscript forward to production. We appreciate your time and support and look forward to seeing the article published in ESurf.

With kind regards,

Angel Monsalve and Oscar Link