Review of "Dynamics of shallow wakes on gravel-bed floodplains: Data set from field experiments"
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General Comments
This paper describes flow velocity measurements, bed and water surface survey data, and flow visualization video of the flow field around circular porous patches recorded in a field flume. Some patch experiments increased the solid volume fraction of the leading edge of the patch in order to approximate driftwood accumulations. The data has been deposited in the Zenodo database.

This paper is well-written and concise, with adequate description of an interesting dataset that will be valuable to future research. While clarification is needed at some points, the manuscript is readable and a useful addition to the field. The flow visualization photos in particular are very well done; the use of simultaneous rhodamine and uranine injections clearly shows the wake interaction even from a drone-held camera and is an improvement over previous methods used for porous patches.

Specific Comments
Line 1: This introductory sentence and overall beginning of the paper could be more inviting, especially given the well-written abstract and standard of writing in the rest of the manuscript.

Line 55: Tsujimoto (1999), Follett and Nepf (2012) and Chen et al. (2013, W09517) have all observed downstream fine sediment deposition experimentally. In addition, the diversion of the side streams and eventual downstream join may form a half-lemniscate shape, but fine particle deposition in the steady wake region takes a triangular shape (Tsujimoto 1999, Photo 3; Follett and Nepf 2012, Figure 5b and Figure 6).

Line 53/Figure 1: I cannot identify the vortex street in Figure 1b; visually this seems very similar to Figure 1a. Please clearly show the delayed onset of the vortex street as described in Line 53.

Line 60: The driftwood aspect (first noticed in Line 118) could be brought out here a bit—otherwise it is difficult to see the difference between "idealized geometries" and the experimental obstructions used.

Figure 2a: what is the wooden apparatus? It is not perfectly perpendicular to the sidewalls and obstruction in the photo; would this have influenced the dataset?

Line 112: What were the relevant survey results that led you to the choice of obstruction diameter?

Line 114: Do you think this distance was adequate to eliminate entrance effects? Why?

Figure 3: Was the channel shallower near the sidewalls, as it appears in photo? If present, how would the bed variation have affected the velocity profile?

Line 165: how is high quality defined?

Line 192: How did you ensure the camera optical axis was perpendicular to the free surface?

Line 204: Does the 1 cm threshold describe the fluctuations of water stage over time, or space? The variation of the free surface in Figure 5 seems to show 2 cm magnitude variation of the free surface—please clarify.

Technical Corrections

Line 35: approximately less than or equal to 0.2

Line 36: therefore (not thereby)

Line 36: prototype does not quite work here--perhaps type, class, regime?

Line 37: consistent use of “the” in the list items

Lines 40-45: Rominger and Nepf (2011) may be appropriate for the sentence ending in …vertical axes of rotation. This paper has a good example of 2D circulations such as those described.

Line 45: The sentence beginning with “Besides…” is confusing. Specifically describing the “features that are typical for shallow wakes behind bluff bodies” would help, e.g. “In addition to the occurrence of a von Kármán vortex street…”

Lines 47-49: This sentence is also vague. Do you mean relatively weaker vortices compared to solid obstructions of the same size? Please be as specific as possible in this section so readers who are not familiar with patch hydrodynamics can understand your later work.

Line 53: The sentence starting with “These wakes are characterized…” is confusing in light of the list in the previous sentence. Is a steady wake present even in 1c? If a vortex street is present “similar to that behind a solid body” (Zong and Nepf 2011 F10b) then why would a steady wake be present? If a steady wake is present in both 1c and 1b, then how do these classifications differ?

Line 92: bed surface

Figure 2a: The obstruction in (II) is not visible easily, perhaps you could circle it or reduce transparency/width of the other marker lines; I assume III is a needle weir (not II as listed); please briefly describe operation of the needle weir; white dashed lines are locations of lateral profiles;

Line 115: isn’t n the number of dowels/cm^2 and then $a = nd$ =dowels/cm^2*cm/dowel?

Line 116: Please clarify that this relationship is true for circular cylinder elements only.

Line 117: “corresponds in the most detail…” please specify that the solid volume fraction is the same “corresponds to cases with equivalent ϕ in Zong and Nepf 2011”

Figure 3: The arrow showing flow direction does not look perpendicular to the obstruction. Is this a correct representation of flow direction? If so please discuss the flow angle in the text.

Line 137: Please specify that floats were placed on ends of structure near flume “sides”—I was concerned that float presence may have impacted the flow profile but this isn’t the case from F3b

Line 165: four to ten minute periods

Line 207: ‘amount of collected data’ is vague, please clarify.

Line 209: complemented