

## ***Interactive comment on “Morphological analysis of hummocks in debris avalanche deposits around Mt Erciyes, central Turkey” by Yuichi S. Hayakawa et al.***

### **Anonymous Referee #2**

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This paper is well written and easily to understand. The paper shows a number of methods to analyze topography of volcanoes and debris avalanches. It will be a good textbook to analyze similar topographies. If the authors have a chance, I hope that they show more description and discussions about smaller topography of hummocks. I think the RPAS method has advantages for analyzing smaller topography than about 5 m, it looks the authors do not use this advantage. I could not understand why the authors studied the hummocks by using displacement angle of measure axis and I could not get that mean and importance of this analysis.

Some comments; Page 1, line 34: I agree this analysis is important to know such destructive hazards. But, I could not get the mean that how this insights help mitigation

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of potential disasters of this study area. Page 4, Figure 1: I think the figure should be understandable by itself. Show the mean of letters “A”, “B”, “C”, “D” in its caption. The area of A to C should be more clearly, I cannot see the boundary between the are A and B. Page 5, Figure 2: Perhaps subfigure c, d and e are not needed. Instead, the authors can show a scale or description of size of hummocks in subfigure b. If you try to discuss micro topography of the hummocks or inner structures of hummocks, you should show subfigures c, d, e. But you did not discuss about them. In addition, I did not see the locations of these subfigures. Show them in Figure 1. Page 6, line 33: what is unit of (>1.0). Page 7, line 14: please explain “geometrical index”. Page 11, figure 6: explain “displacement angle” in this caption. Page 12, figure 7: I cannot see the location of the main course in Figure 1. Page 14, figure 9: The tendency of the hummock sizes of Erciyes is quite different from others. I think the authors should show this reason well.

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