

***Interactive comment on* “Experimental study of forced convection heat transport in porous media” by Nicola Pastore et al.**

Anonymous Referee #2

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Authors extended a thematic issue through heat transport experiments and their interpretation at laboratory scale. They carried out an experimental study to evaluate the dynamics of forced convection heat transfer in a thermally isolated column filled with porous medium. The behavior of two porous media having different grain sizes and specific surfaces was observed. The analysis is interesting. But I have the following concerns: (1) The abstract part should be reduced to highlight the more important contents. (2) This paper focuses on the experimental study of forced convection heat transport in porous media. So many related works have been listed in introduction part. Compared to the existing methods and results, what is the main contributions of this paper? The authors should explicitly specify this. (3) Authors claimed that for M2 there is the existence of stagnant zones which reduce the amount of porosity that

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contributes to fluid flow. Add more analysis for this. (4) All the parameters should be explained. Some parts are hard to follow. (5) Please highlight the importance of this experimental study. And clearly indicate what is the new question that is answered in this experimental study? (6) Add more words for Fig.3 and 4. (7) Authors indicated that "the behavior of two porous media having different grain sizes and specific surfaces has been observed." If possible, please provide snapshot for this. (8) What kind of experimental data was acquired? How to interpret these experimental data? All these need to be clearly indicated.

Interactive comment on Nonlin. Processes Geophys. Discuss., <https://doi.org/10.5194/npg-2017-53>, 2017.

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