Editor's comments are in italic, our answers are in bold, and manuscript modifications are underlined.

Figure 2. The caption says: 'The bars show the maximum and minimum around the median predicted by these models.' But, there are also bars around the measurements. I propose to make these bars also represent the maximum and minimum of the measurements. **It was adapted following your recommendation, <u>see figure 2.</u>**

Figure 3 and the discussion on the replicates. It is still not clear what the replicates actually are. Did you use the same soil and stone material which was five times dried, sieved and repacked or did you make 5 columns at the same time (and consequently used different soil and stone material in each replicate)? **The soil was four times dried and sieved and packed. But between each of these replicates, we performed measurements on 4 columns with the four different stone content.** *Secondly, why should the measurements on for instance replicate 5 for the different stone contents be connected by a line? This suggests that replicate 5 at for instance a stone content of 20% has something in common with replicate 5 at a stone content of 40 %. What is it that these replicates have in common? If there is no reason why there should be a common factor and explanotary factor between replicates at different stone contents, then there is no reason to connect them with a line. It would even not be relevant to know then the replicate number of a certain data point.* **The common factor is the soil used: the same soil was 4 times dried, sieved and packed. Since it shows a decreasing of K considering the number of drying, the replicate number is relevant. This comes from supplementary experiments not shown here: we guessed that the drying and sieving were a source of K variation. We thus did the following experiments with different stone contents in parallel. However, since the soil is mixed between replicates, we removed the lines as suggested by the editor. <u>See figure 3.</u>**

'One could think that this observation is directly related to change in the minimal cross section for water flow.' Add how the minimal cross section was defined. Did you calculate the minimal cross section from calculating the flow cross sections at different hights in the sample? **The minimal cross section is basically the sample width minus the maximal bulk of stones. It has been added, <u>see p.13 l.24.</u>**

'the relationship is not perfect as we could expect with numerical simulations, and so forth could support the hypothesis' Reformulate. **The sentence has been modified, <u>see p.13 l.25-28</u> : "Even if we observe a linear trend between these two variables, the relationship is not perfect as we could expect with numerical simulations supporting the hypothesis that the reduction of the cross section is not the only factor for K_r variations."**

'on the one hand, numerical instabilities are more plausible at the limits of the sample and on the one hand, the use of bigger samples than conventionally used (6.5 cm height) might reduce the accuracy of the evaporation method' You use two times 'on the hand' here. **It has been corrected, <u>see p.9 l.15-18.</u>**