

Answers to comments by Referee #2 (Wayne Angevine)

We thank Dr .Wayne Angevine for his comments on our manuscript.
The point-by-point replies to the comments are provided below:

Comment #1: *It would be helpful to define "extensive" and "intensive" variables.*

Answer: Ok

Changes in manuscript: A short explanation / example has been added in parenthesis at the first occurrence of each of the terms.

Comment #2: *p.6 line 10: It would be better English to say "current" rather than "actual."*

Answer: It would be better, indeed.

Changes in manuscript: We replaced "actual" with "current".

Comment #3: *p.10 line 2: Please check the part after "equivalently" to make sure the subscripts are correct and consistent.*

Answer: The subscripts are correct as can be seen from Eq. (2), but double subscripts might be confusing. We changed the index variable from $i_{\{T\}}$ to N to avoid that.

Changes in manuscript: In section 3.1 we changed $i_{\{T\}}$ to N and modified the sentence: They are available as amounts (or equivalently, as average precipitation rates) during $\$N-I\$$ constant time intervals of duration Δt , bounded by equidistant times t_i where.

We also changed the indices in the Boundary conditions subsection 3.3.1 (old version 3.4.1).

Comment #4: *Section 3.6.1: It would be helpful to state up front that this method is done as a second pass through the data. It becomes clear later.*

Answer: We agree. This comment overlaps with comments of Referee 1. In response to these comments, we have restructured section 3, and modified the subheadings so that they convey the information that the filter is a post-processing step in IA1. It is now also explicitly stated in the subheading that IA2 requires a second sweep.

Changes in manuscript: We changed the title of this subsection to "Monotonicity filter as a post-processing step". And we modified the last sentence of the section: *The interpolation algorithm which uses the monotonicity filter as a post-processing step henceforth is called Interpolation Algorithm 1 (IA1) and is summarized in Table 1.*