

**Interactive comment on “Sampling frequency trade-offs in the assessment of mean transit times of tropical montane catchment waters under semi-steady-state conditions” by E. Timbe et al.**

**REPLY TO REFEREE #2 & EDITOR MARKUS HRACHOWITZ**

*Please find below our replies to comments of the Editor and the Referee #2.*

**1. COMMENT FROM THE EDITOR**

Dear authors,

Thank you for the revised version of your manuscript, in which you thoughtfully addressed the concern of the manuscript not being standalone. I agree with the assessment of the reviewer that this new version is an interesting contribution to literature and I will be glad to accept it for publication once the minor technical corrections suggested by the reviewer are dealt with. I am looking forward to receive a revised/corrected version as soon as possible. Best regards, Markus Hrachowitz.

⇒ *We thank to the Editor Markus Hrachowiz for handling the paper and the useful remarks!*

**2. COMMENT FROM THE ANONYMOUS REFEREE #2**

The revised version of the manuscript “Sampling frequency trade-offs in the assessment of mean transit times of tropical montane catchment waters under semi-steady-state conditions.” by Timbe et al. is big improvement. One can see that much thought and work has gone in reordering/rewriting the manuscript, which is appreciated. Apart from minor technical comments, I have no further concerns about self-plagiarism or the focus of the paper, which is now much clearer.

⇒ *We deeply thank to the Referee #2 whose comments and observations contributed to substantially improve the paper.*

**3. REQUIRED TECHNICAL CORRECTIONS FROM ANONYMOUS REFEREE #2**

**Introduction:**

p3, line 4 “Most tracer studies...”

⇒ *Correction performed.*

line 18,19: I would change the words “time sequence” to “temporal resolution”

⇒ *It was changed to “temporal resolution”.*

line 25: sensitivity analysis

⇒ *Word was changed and now it reads “sensitivity analysis”.*

### **Methods:**

p4, line 8: “According to Timbe et al. (2014)...” You could also already mention here that Timbe et al. (2014) used weekly resolution, although it does appear later in the text, I think it would be good here since you talk about the resolution already.

⇒ *Suggested change was performed, now it reads: “According Timbe et al. (2014), who used weekly resolution data, ...”*

p5, line 3: it looks like between the words “and” & “springs” that there is a space character too much.

⇒ *Space character was deleted.*

line 11: on-site differences

⇒ *Change performed.*

line 19,20: “The decision to shorten the time series”, delete “in this study”.

⇒ *We deleted the sentence: “in this study”.*

line 23: “reason for”

⇒ *We changed “reason of” to “reason for”.*

p6, line 5: delete the comma after “(GM) models”

⇒ *Misplaced comma was deleted.*

line 15: “consisted of isotopic time-series” I guess.

⇒ *Indeed, now it reads “consisted of isotopic time-series”.*

line 16: “the observed variation of each analyzed”

⇒ *Corrected.*

p7, line 12: 20 times what? 20 time the length of the time series, I guess.

⇒ *Reviewer#2 is right, the referred sentence now reads: “...20 times the length of the observed time series”*

line 24,25: delete “:stream and soil waters,” or put it in brackets ()

⇒ *The referred words were deleted*

### **Results:**

p11, line 17: “which was not far from”, delete the comma

⇒ *Misplaced comma was deleted.*

### **Discussion**

p13, line11: “finer ones were provided.” delete the comma

⇒ *Misplaced comma was deleted.*

p14, line 21: “...varied between analyzed streams between...”

⇒ *Sentence was reworded and now it reads: “Considering a gamma distribution for the analyzed streams,  $\tau$  varied between...”*

### **Conclusion**

p15, line 13: “is essential for defining”

⇒ *Suggested change was performed.*

### **Acknowledgement**

p15, line 26: “The authors are grateful...”.

⇒ *Suggested change was performed and additionally we have included special thanks to the Reviewers and the Editor.*