

**Topical Editor Decision: Publish subject to minor revisions (review by editor) (06 May 2020) by [Wolfgang Kurtz](#)**

Comments to the Author:

Dear authors,

thank you very much for the revision of your manuscript which basically addressed the points from the previous review round.

After going through the paper again, I found a few minor issues that should be handled before the paper can be published:

- line 346-348: The statement here is not quite clear to me. The Mualem-Van Genuchten model provides closed-form equations for unsaturated hydraulic conductivity (equation 12) and the soil water retention curve. But their usage in equation 11 does not necessarily lead to the 'simplification' mentioned in the second sentence. Do you refer to the lower boundary condition (i.e. free drainage) in the lowest soil layer here? Please provide more details on how soil water flow is calculated in the model.

- line 601: Please clarify what a 'node' is in this context. Same as in line 608?

- Please check for consistent font size (e.g. lines 653-659), text color (line 738) and correct punctuation (e.g. line 263/264/877).

Kind regards,  
Wolfgang Kurtz

We sincerely thank the editor for his comments:

- We replace line 346-348 with the following sentences and we hope that clarifies the soil water model.  
In order to apply an analytical and faster solution Van Genuchten (1980) hydraulic functions based on Mualem's (1976) model were adopted. It assumes a matric potential gradient of zero, which implies a flow that is that is always in a downward direction at a rate equal to the conductivity of the soil, and free drainage as the lower boundary condition in the lowest soil layer. The relationship between hydraulic conductivity and soil moisture status is described by the Van Genuchten (1980) equation.
- We replace 'node' with CPU core, which is the exacter term for this.
- Font size and text color were corrected for the lines and checked through the text
- Punctuation was set correctly
- Some other spelling, white spaces errors where corrected

Best regards,

Peter Burek