

Dear authors,

Based on the comments raised by the reviewers to your article and upon my own reading, I will be happy to consider publication upon the required technical corrections annotated by the reviewers. For your convenience I summarized the reviewer's points below.

1. Eq.(1) is inconsistent with description and Eq.(3);  $\sigma$  (sigma) should be replaced by  $\tau$  (tau) in Eq. (1) as both stand for the deviatoric stress tensor. If  $\sigma$  would stand for the total stress tensor, then it would include pressure which should be removed from Eq.(1).

We replaced  $\sigma$  (sigma) with  $\tau$  as requested. Thanks for noting this very important inaccuracy!

2. Section 5.1, I would rephrase "Symmetrical Multiprocessor (SMP) system with an Intel Xeon E5 processor and 32 GB RAM". "Symmetrical Multiprocessor (SMP)" is very uncommon and adds no further information. Instead, it would be interesting to know how many cores that Xeon E5 cpu has, and how they where (or not) used in the benchmark runs.

We rephrased as requested also added a few more technical details (line 255-257). Also removed a sentence in line 297, which is now superfluous.

Dear editor,

thank you very much for the summary above and for your kind consideration.

We included the changes above and a few more inconsistencies that had previously gone unnoticed.

Contact author:

please note that we replaced the contact author, which is now Paul Bons (paul.bons@uni-tuebingen.de)

Main text:

- FIXED: Line 17: replaced ,FE' by ,finite elements' (used for the first time)
- FIXED: Line 35: 'that that' replaced by 'that'
- FIXED: Line 74/75: small changes of the wording due to renaming of deviatoric stress tensor
- FIXED: Due to wrong automatic numbering, Eq. 14 and 15 had been labeled 8 and 9 in the previous version. This has been corrected, and mentions in lines 203, 218, 223, 277, 355 were adapted.

Supplement text:

- FIXED: some tables had a formatting issue and didn't show borders.