Dear Editors,

We are pleased to submit a research article entitled “An interleaving approach to combinatorial testing and failure-inducing interaction identification” which we wish to be considered for publication in the IEEE transactions on software engineering (TSE).

It should be pointed out that this work is a thoroughly improved version of a previous manuscript which has been suggested to “revise and resubmit as new” by TSE after the review process (major revision --> revise and resubmit as new). The reference number of the previous manuscript is TSE-2017-07-0182.R1.

After a careful understanding of the comments from the reviewers of TSE-2017-07-0182.R1., we have made a major revision to the previous manuscript. Our revision includes, but not limited to 1) We correct the conflicting text as suggested so that these discussions are compatible with the experimental data shown in Table 27 of Section 5.6.2; 2) We gave the results of tested-t-way coverage of the experiments in Section 5.7, 5.8 and 5.9; 3) We offered more details of all the synthetic software as suggested, which include the inputs modeling and the information of the MFS. 4) We re-phrased those sentences which are not strict to be more rigorous; 5) We updated the Threats to Validity section as suggested.

We thank you for considering this work and look forward to your response.

Sincerely

Xintao Niu