We appreciate the editor for giving us the opportunity to explain the discrepancy between our final version and the accepted version. In fact, we have not made any modification on the technical content of the paper. The modifications we made are meant to improve the clarity and readability of the paper.

For most of the differences that are marked, they are the rewording of words and sentences that improves the legibility of the paper. We have also made a few changes to a figure based on the reviewer’s response and fixed some typos in the originally accepted version. We replaced some figures with high-quality ones based on the results of the graphics checker when uploading the final version.

We realize that we have made a few modifications that involve changes of several sentences. However, they are only the change of content locations in the text, not the content themselves. We explain them in the following:

On page 4, “The state estimate … the UKF algorithm”. We moved these two sentences from before Equations (5) to the end of this paragraph. This change makes the definition of parameters more clear as we define their analytical expressions immediately after mentioning them in the context.

On page 5, at the bottom of the first column, we moved “The solution of the optimal control input … as the robot’s control input” to a separate paragraph and switched with the following paragraph (“the objective function … state at time k”). This is because we realize that in the previous version we described the solution of the optimization problem before giving a clear definition of the problem itself. After the modification, we first define the optimization problem, then describe its solution.

We hope this explanation can clarify the discrepancy between the two file versions. If the editor thinks that we should better use the originally accepted version instead of this modified version, we will be very glad to re-upload files. We really appreciate the editor’s effort to help improve the quality of the paper.