Dear editorial team,

we are submiting the revised version of the manuscript gmd-2021-250 entitled "Effects of dimensionality on the performance of hydrodynamic models".

Please note that the detailed point-by-point response to all referee comments was provided over discussion (<u>https://gmd.copernicus.org/preprints/gmd-2021-250#AC5</u> and <u>https://gmd.copernicus.org/preprints/gmd-2021-250#AC4</u>). Therefore, as agreed with the topical editor, at the moment only the revised version with the marked changes is being provided, which was done according to the given responses.

Kind regards, Mayra Ishikawa