Dear Editor,

On behalf of all co-authors, I submit the manuscript titled “Neuronal population reconstruction from ultra-scale optical microscopy images via progressive learning” for possible publication in IEEE-TMI. A preliminary version of this work has been published in MICCAI 2019 (uploaded as supplemental material). In this paper, we include the following extensions.

-- We introduce a new large-scale neuronal population reconstruction algorithm to reconstruct neuronal populations from large-scale brain images.
-- Comprehensive analysis to the large-scale neuronal population reconstruction issue from noisy and large-scale images, and a progressive learning scheme as an effective solution.
-- Comparisons with more neuron reconstruction methods with regard to neuronal population reconstruction on the VISoR-40 dataset and single neuron reconstruction on the BigNeuron dataset.
-- Comparisons with existing state-of-the-art large-scale neuron reconstruction methods with regard to reconstruct neuronal populations from a large-scale optical microscopy image.
-- A more comprehensive survey of related work on robust neuron reconstruction and large-scale neuronal population reconstruction.

Thank you for your time with this paper.

Sincerely yours,
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