Dear reviewer:

Thank you very much for your careful checking and constructive comments! The responses of your precious comments are as following:

Comment 1: I would recommend a minor editing regarding the use of english (see, for example, lines 31 (... its ...), 55 (... the to be measured ...), 69 (In aim ...), 160-161, 218 (To verification ...), 252-254, etc.).

Reply: We are so sorry for our carelessness in writing. We checked our manuscript again and also submitted our paper to MDPI for further English editing. We believe the revised manuscript is better and with enough readability.

Comment 2: In the abstract, the statement "... while the perfect-round circle method is the worst ..." could become more moderate (e.g. the authors could list the methods according to their efficiency).

Reply: We modified the abstract of the revised manuscript as: "**Abstract:** A generalized contour-sum method has been proposed to measure the topological charge (TC) of an optical vortex (OV) beam using a Shack–Hartmann wavefront sensor (SH-WFS). Moreover, a recent study extended it to be workable for measuring an aberrated OV beam. However, when the OV beam suffers severe distortion, the closed path for circulation calculation becomes crucial. In this paper, we evaluate the performance of five closed path determination methods, including watershed transformation, maximum-average-intensity circle extraction, the combination of watershed transformation and maximum-average-intensity circle extraction, and perfectly round circles assignation. In the experiments, we used a phase-only spatial light modulator to generate OV beams and aberrations, while an SH-WFS is used to measure the intensity profile and phase slopes. The results show when determining the TC values of distorted donut-shaped OV beams, the watershed transformed maximum-average-intensity circle method performed the best, and the maximum-average-intensity circle method and the watershed transformation method came to be the second and third, while the worst is the perfect circles assignation method. The discussions that explain our experimental results are also given."