ABSTRACTS

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Heuristic methods in electron tomography segmentations

The discrete ordered median problem presents an application in electron tomography image segmentations. The adaptability of this problem to the different instances achieves high quality image segmentations. However, the solutions provided by the discrete ordered median problem for large scale instances are obtained in high computing times.

Therefore, applying this problem to images constituted by a large number of intensities could be impractical for electron tomography experiments. This work analyses the effectiveness of applying some heuristics procedures for solving the discrete ordered median problem.

Moreover, some noticeable improvements of the heuristic techniques are developed taking advantage of the particular versions of the ordered median function that have been proven to be especially suitable in the electron tomography image segmentation.