

Geometry segmentation based on the normal vector field with total variation regularization

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The total variation has proven as a useful regularizer for various applications in Inverse imaging and Shape optimization problems. For the task of shape segmentation, we propose a model that incorporates the normal vector data of a discrete surface with a total variation penalty of the resulting segmentation. We solve the problem using the Chambolle Pock algorithm and introduce a linear version to apply suitable LP solvers.

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