Formulation of Mumford and Shah problem by level set

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Abstract : The limitations of the active contour based on borders have directed the research towards solutions wherethe contour is built from all the information contained in the image. They are known as region-based active contours. More robust to the noise and less sensitive to the position of the initial curve, the models based on regions have for general principle to develop a curve so that in the convergence, we realize a partition of the image in two homogeneous regions.We obtain two regions because a single curve bounds only two domains in image. The region-based active contours base generally on statistical.

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