

The Bayesian formulation for radiographic image segmentation of welding defect using Mumford and Shah model

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Abstract : In this paper, we propose to use the method of piecewise constant level set with the Mumford-Shah model. For image segmentation, the Mumford-Shah model needs to find regions and constant values of the regions, for it we use a variational approach based on the extraction of regional information (mean and variance) for the process segmentation in an adaptive manner. Finally, we validate the proposed models by numerical results for radiographic image segmentation.

Keywords : Level set, Mumford shah model, image segmentation