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Local and Global Statistics-Based Explicit ActiveContour for Weld Defect Extraction inRadiographic Inspection

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Abstract : Welding is a process of utmost importance in the metal industry. With the advances in computerscience and artificial intelligence techniques, the opportunity to develop computer aided technique forradiographic inspection in Non-Destructive Testing arose. This paper deals with the weld defects detectionin radiographic films. A greedy active contour model is used exploiting global and local statistics to drivethe model to the boundaries. Moreover, and to decrease the computation cost, the local statisticscomputation is done only for pixels in a selected band. Results seem to be promising ones.

Keywords : Radiographic inspection, weld defects, Active contours