

Signal to noise enhancement using wavelets and split spectrum processing. Application to defect detection by ultrasonics

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Abstract : In ultrasonic techniques, information on defects characterization possibilities have required more evolved techniques development than classical methods. to obtain a high probability of defect detection, these methods use signal processing algorithms in order to enhance signal to noise ration. In this paper, some signal processing algoritms mike split spectrum processing (SSP) and wavelets are developed and implemented on computer allowing their utilization in ultrasonics NDT results processing.

Keywords : NDT, Ultrasonics, Split spectrum techniques, digital wavelets transform, Signal to noise ratio