

# Defect Detection by Split Spectrum Processing and Discrete Wavelet Transform in Coarse Grains Materials

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**Abstract :** In this work, we propose in one hand, to develop algorithms based on Split Spectrum Processing (SSP) with Q constant method associated to "Group delay moving entropy" (GDME), and on the second hand, to develop a method based on Discrete Wavelet Transform (DWT). These algorithms allow detecting and locating imperfections echoes drowned in the structural noise of materials.

**Keywords :** Ultrasonic NDE, Defect Detection, split spectrum processing, DWT