



DETECTION OF NONLINEARITIES CAUSED BY BUBBLES IN ULTRASONIC SIGNALS (MonPmOR10)

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★ Abstract :

In the present work we consider the problem of detection and characterization of ultrasonic echoes due to scattering on bubbles. A good knowledge of this phenomena will help us in the future to develop low false alarm detectors. The nonlinear / non-Gaussian nature of this echoes suggest the use of surrogate data for detection with some modifications. Several nonlinear metrics (classical and higher order statistics based) will be evaluated. An experiment will be done in order to check the proposed technique on real data.