



IMPROVEMENT OF THE FAST MOVING TARGETS PRESENTATION IN ISAR BY USING THE S-METHOD (WedAmOR10)

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★ Abstract :

Commonly used technique for the ISAR signal analysis is a two dimensional Fourier transform. In the cases when the line of sight projection of target point velocity changes or the movement within the coherent integration time is noncompensated then the Fourier transform produces blurred and distorted images. Standard techniques for these kind of problems are in movement compensation or in the time-frequency analysis application. Both of them are computationally intensive. Here, we will present a numerically simple S-method based approach. This approach improves readability of ISAR images, with only a slight correction of the existing Fourier transform based algorithms. Implementation is presented and tested on common benchmark signals.