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| **Published Researches**  **الأبحاث المنشورة** | |
| Title  **عنوان البحث** | Overlapping Signal Separation Method Using Superresolution Technique Based on Experimental Echo Shape |
| Author  **الناشر** | Jihad Al-Oudatallah, Fariz Abboud, Mazen Khoury, Hassan Ibrahim |
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| Abstract  **خلاصة** | Abstract  Overlapping signals separation is a difficult problem, where time windowing is unable to separate signals overlapping in time and frequency domain filtering is unable to separate signals with overlapping spectra. In this work, a simulation under MATLAB is implemented to illustrate the concept of overlapping signals. We propose an approach for resolving overlapping signals based on Fourier transform and inverse Fourier transform. The proposed approach is tested under MATLAB, and the simulation results validate the effectiveness and the accuracy of the proposed approach. The approach is developed using Gerchberg superresolution technique to cope with signals with low signal-to-noise ratio. For practical work, an echo shape determination is required to apply the proposed technique. The experimental results show accurate |