

## عنوان مقاله:

A New Algorithm (C2-ESPRIT) to Estimate the Direction None Coherent Narrowband Signals with High Resolution and Low Sample Size

## محل انتشار:

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## خلاصه مقاله:

This paper introduces a new algorithm named C2-ESPRIT to estimate the direction of narrow band signals which are not coherent. The new technique estimates direction of arrival (DOA) by dividing the received signals into two sub-array and performing sub-array processing where a new diagonal matrix is obtained. As the elements of this matrix are associated with the main angles of arrival signals, it can be used to estimate the DOA of signals. The main idea in this paper is how the signal's sub-array are obtained and a processing method is used. Unlike the two algorithms named ESPRIT and C-SPRIT, where the result of processing the signals were a diagonal matrix and diagonal conjugated matrix, in C2-ESPRIT it may appears in the form of the square conjugate diagonal matrix. The advantages of this method compared to ESPRIT and C-SPRIT, are the reduction of the variance, high resolution and requirement of fewer samples in the receiver. MATLAB is used to compare and verify new C2-ESPRIT algorithm efficiency with three known algorithms: Root-Music, ESPRIT and C-SPRIT.

## کلمات کلیدی:

band signal, none coherent, subspace, DOA estimation, coherent signal

## لینک ثابت مقاله در پایگاه سیویلیکا:

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