

عنوان مقاله:

Estimating the Number of Wideband Radio Sources

محل انتشار:

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خلاصه مقاله:

In this paper, a new approach for estimating the number of wideband sources is proposed which is based on RSS or ISM algorithms. Numerical results show that the MDL-based and EIT-based proposed algorithm have a much better detection performance than that in EGM and AIC cases for small differences between the incident angles of sources. In addition, for similar conditions, RSS algorithm offers higher detection probability compared to ISM one, meanwhile it needs a heavy computational complexity than ISM. Furthermore, the effect of bandwidth on the performance of the proposed algorithm is studied. Simulation results show different detection probabilities for the proposed RSS and ISM algorithms meanwhile decreasing the bandwidth is the reason for increasing the performance of both RSS-EIT and ISM-EIT algorithms.

کلمات کلیدی:

Rotational signal subspace, Incoherent signal subspace, Minimum description length, Akaike's information criteria, Eigenvalue gradient method, Eigen increment threshold

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