



ADAPTIVE RESOLUTION ANGLE OF ARRIVAL ESTIMATION (WedAmOR8)

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★ Abstract :

Application of basic matching pursuit (BMP) and orthogonal matching pursuit (OMP) algorithms for angle of arrival detection was recently proposed. In this paper, we propose an adaptive structure for matching pursuit algorithms that uses a progressive refinement structure for detection of angle of arrivals of point sources. The proposed adaptive algorithm allows the detector to adjust the tradeoff between the computational complexity and the resolution performance. Furthermore the proposed adaptive structure results in a lower computational complexity than the direct implementation of BMP or OMP algorithms for the same resolution precision.