



THREE-DIMENSIONAL AUTOREGRESSIVE PARAMETER ESTIMATION FROM NOISY DATA (TueAmPO2)

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✱ **Abstract :** This paper deals with the three-dimensional Autoregressive (3-D AR) model parameter estimation from noisy data. We develop an algorithm to estimate the transversal AR parameters corresponding to the Quarter-Space (QS) region of support without a priori knowledge of additive noise power. The transversal parameters and the noise variance are both obtained as a solution of a quadratic eigenvalue problem. The performance of the proposed algorithm is evaluated by numerical examples.