Stationary Distribution of Absolute Autoregression

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Abstract: A procedure for computation of stationary density of the absolute autoregression (AAR) model driven by white noise with symmetrical density is described. This method is used for deriving explicit formulas for stationary distribution and further characteristics of AAR models with given distribution of white noise. The cases of Gaussian, Cauchy, Laplace and discrete rectangular distribution are investigated in detail.

Keywords: absolute autoregression; stationary distribution; marginal distribution;

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