

The Effect of Measurement Distribution on System Identification and Detection of Behavior of Nonlinearities of Data

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Abstract : In this paper, we considered and applied parametric modeling for some experimental data of dynamical system. In this study, we investigated the different distribution of output measurement from some dynamical systems. Also, with variance processing in experimental data we obtained the region of nonlinearity in experimental data and then identification of output section is applied in different situation and data distribution. Finally, the effect of the spanning the measurement such as variance to identification and limitation of this approach is explained.

Keywords : Gaussian process, nonlinearity distribution, particle filter, system identification

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