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Two-stage recursive least squares parameter estimation algorithm for output error models. (English) Zbl 1255.93133

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Summary: We present a two-stage recursive least squares algorithm for output error models. The basic idea is to combine the auxiliary model identification idea and the decomposition technique and to decompose a system into two subsystems, which contain one parameter vector each. Compared with the auxiliary model based recursive least squares algorithm, the proposed algorithm has less computational burden.

MSC:

93E10 Estimation and detection in stochastic control theory
93E24 Least squares and related methods for stochastic control systems

Keywords:

least squares; two-stage algorithm; auxiliary model; decomposition technique

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