Improved Frequency Response Model Identification Method for Discrete-time Processes

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A new frequency response model identification method for discrete-time processes is present. The proposed method provides accurate frequency response data sets for any desired frequencies and is applicable to various process conditions such as both initial and final steady state, initial steady state and final cyclic steady state and both initial and final cyclic steady state. And it need not have to store the process input and output data, while the last method requires a significant amount of memory for a data preprocessing step. Also, it estimates the exact models even in the presence of a static disturbance and shows an acceptable robustness to measurement noises.