Profile Monitoring via Nonparametric Regression

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We consider statistical process control (SPC) applications for cases in which the quality of a process or product is characterized by a relationship (or profile) between a response variable and one or more independent variables instead of by the distribution of a single quality characteristic. Profile monitoring is a fairly new and prosperous research area in SPC. In this talk, we first review some recent research developments given in the literature and then present a profile monitoring technique based on nonparametric regression.

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