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**Performance assessment and improvement of control charts for statistical batch process monitoring.** (English) [Zbl 1109.62365](#)  
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Summary: This paper describes the concepts of statistical batch process monitoring and the associated problems. It starts with an introduction to process monitoring in general which is then extended to batch process monitoring. The performance of control charts for batch process monitoring is discussed by means of two performance indices: the overall type I error and the action signal time. Problems associated with the existing approach are discussed and highlighted. Improvements are suggested and checked with the performance indices. To evaluate the effect of the proposed improvements as well as to assess the performance of the existing approach, an industrial batch production process is used.

**MSC:**

**62P30** Applications of statistics in engineering and industry; control charts

**Keywords:**

**MSPC; Bonferroni; overall type I error; action signal time**

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