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**Yajun Mei\*** (yimei@isye.gatech.edu), 765 Fesrt Drive, Atlanta, GA 30332-0205. *Monitoring Large-Scale Data Streams via Shrinkage*. Preliminary report.

In the modern information age one often monitors large-scale data streams with the aim of offering the potential for early detection a “trigger” event, e.g., quality control, (bio)surveillance, health care, security and environmental science. In this talk, we investigate the problem of online monitoring large-scale independent data streams where an undesired event may occur at some unknown time and may affect only a few number of data streams. In order to develop scalable global monitoring schemes, we propose to monitor each univariate local data stream by a classical sequential change-point detection method, and then combine all local detection schemes together to produce an efficient global scheme via shrinkage transformations. Besides numerical simulations, the asymptotic properties of the false alarm rate of the proposed schemes are also derived under the modern setting when the number of data streams goes to infinity. (Received September 01, 2014)