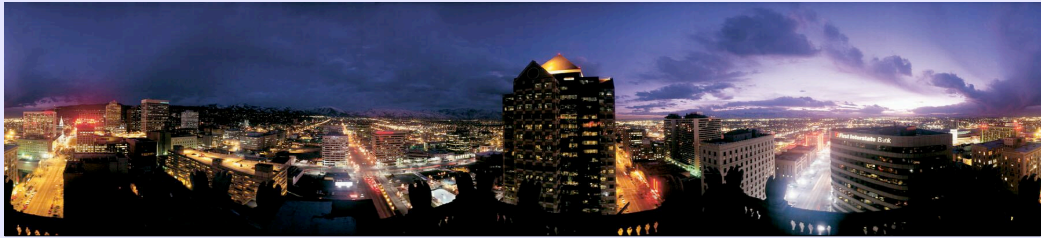


# *Stochastics Seminar*

## Department of Mathematics, University of Utah



## **A Test for a Mean-Change Based on Weighted Moving Averages**

*Mario Kühn*

University of Köln

**Time and Place:** Thursday April 6, 2006; 3:30–4:25 p.m.; LCB 215

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We consider an asymptotic sequential test with finite horizon for a single change in the mean of iid observations. In order to control the strong-approximation error we use weights whose sum is divergent. The asymptotic distribution of the test statistic under the null hypothesis is derived, and the main result is illustrated by a small simulation study. Our test is closely related to the EWMA (exponentially weighted moving average) control scheme proposed by Roberts.