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Lisa Bloomer Green* (lbgreen@mtsu.edu), Box 34, Middle Tennessee State University, Murfreesboro, TN 37132, and **Erik M. Boczko**. *Area Test for Observations Indexed by Time*. Preliminary report.

We introduce a simple hypothesis test that is appropriate for the analysis of data indexed by time. The test is motivated by microarray experiments. The test is predicated on a simple but judicious choice of null hypothesis and the L_2 norm as test statistic. Application of the test, its flexibility and our analysis are based on the bootstrap. We demonstrate the power of the test on simulated data, compare the performance of the test to more traditional analysis methods, and show how the test can be extended to other situations. (Received August 15, 2005)