# Sequential Testing Procedures in a Family of Lifetime Distributions with Applications

**Md. Wasi Alam**

*Indian Agricultural Statistics Research Institute, New Delhi-12*
*wasi@iasri.res.in*

## ABSTRACT

A family of distributions has been considered. Sequential testing procedures have been developed for the family when the known parameter is assumed to be constant. Sequential testing procedures have also been developed for the family under the situation when known parameter has undergone a change and the robustness of the developed testing procedures have been examined. The developed sequential testing procedures have been applied on real data set on mortality rate of white fly (*Bemissia tabaci*) after spray of the Imidacloprid at the concentration of 0.2%.

*Keywords:* Sequential probability ratio test; family of distributions; robustness, white fly.

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