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Change Point Analysis for Generalized Lambda Distribution

Wei Ning & A. K. Gupta

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Abstract

In this article, we study the detection of multiple change points of parameters of generalized lambda distributions (GLD). The advantage of studying GLD is that the GLD family is broad and flexible. Compared to the other distributions, there are fewer restrictions on the distribution while fitting data. We combine the binary segmentation procedure together with the Schwarz information criterion (SIC) to search for all possible change points in the data. The method is applied on fibroblast cancer cell line data which is publicly available, and the change points are successfully located.

Keywords:

Change points | Estimation | Generalized lambda distributions | Information criterion

Mathematics Subject Classification:

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