1086-VI-1299   **Grace Ngunkeng*** (`ngrace@bgsu.edu`), Department of Mathematics and Statistics, Bowling Green State University, Bowling Green, OH 43403, and **Wei Ning** (`wning@bgsu.edu`), Department of Mathematics and Statistics, 409 Math Science Building, Bowling Green State University, Bowling Green, OH 43403. *An Empirical Likelihood Ratio Based Goodness-of-Fit Test for Skew Normal Distributions.*

In this paper, an empirical likelihood ratio based goodness-of-fit test for skew normal distribution is proposed. The asymptotic null distribution and the alternative distribution are investigated. Simulations indicate that the proposed test can control the type I error within a given nominal level, and it has competitive power compared to the other available tests. Such a proposed test is applied to a real data to illustrate the testing procedure. (Received September 20, 2012)