Name **:** **Ahlam Mohamed Saad Hussein**

Institute **:** **Statistical Studies and Research**

Dept. **:** Mathematical Statistics

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Title of Thesis: Quasi-Bayesian Estimation

Supervisors : Dr. El-Sayed Ahmed El-Sherpieny

Abstract :

In this thesis we consider the quasi-likelihood and quasi-Bayesian estimation as our main estimation techniques. We derive the quasi-likelihood estimation for unknown parameters of the two parameters Gamma distribution. On the other hand, we consider and derive the quasi-Bayesian estimators of the unknown parameters of the Gamma distribution. For comparison purpose we use; maximum likelihood estimators, the principle of maximum entropy (POME) estimators and the Bayesian estimators using Lindley (1980) approximation which performed by Pradhan and Kundu (2011). We investigate the performance of the proposed estimators of the shape and the scale parameters and the compared methods through a simulation study.

Keywords:

Quasi Likelihood Function; Quasi Bayesian Likelihood; Principal of Maximum Entropy (POME); Gamma distribution.