

# The A Priori Procedure (APP) for Estimating the Location Parameter Under Elliptical Setting

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**Abstract:** The a priori procedure (APP) provides minimum sample sizes that ensure precision and confidence in the sample statistics. This enhances trust in the estimates of corresponding population parameters. An elliptical distribution is a member of a broad family of probability distributions that generalize the normal distribution. Under the uncorrelated assumption, the desired sample size for estimating the location parameter of the elliptical distribution is discussed with given precision and confidence level. The confidence interval for the location parameter is constructed based on the desired sample size using elliptical distribution.

**Key Words:** Elliptical distribution; a priori procedure; required sample size; confidence interval.