



# Essentially ML ASN-Minimax double sampling plans

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Subject of this paper is ASN-Minimax (AM) double sampling plans by variables for a normally distributed quality characteristic with unknown standard deviation and two-sided specification limits. Based on the estimator  $p^*$  of the fraction defective  $p$ , which is essentially the Maximum-Likelihood (ML) estimator, AM-double sampling plans are calculated by using the random variables  $p^*_1$  and  $p^*_p$  relating to the first and pooled samples, respectively. Given  $p_1$ ,  $p_2$ ,  $\{\alpha\}$ , and  $\{\beta\}$ , no other AM-double sampling plans based on the same estimator feature a lower maximum of the average sample number (ASN) while fulfilling the classical two-point condition on the corresponding operation characteristic (OC).

Subjects: **Methodology (stat.ME)**

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