سمینار هفتگی گروه آمار

Shrinkage Estimation of $\mathrm{P}(Y < X)$ in the Exponential Distribution Mixing with Exponential Distribution

سخنران:

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زمان:

چهارشنبه ۱۸ فروردین ماه ۱۳۹۵ ساعت ۱۰ صبح

مکان:

سالن دکتر بزرگ نیا

خلاصه:

We consider the problem of estimation $R = \mathrm{P}(Y < X)$ where X and Y have independent distributions. X have exponential distribution mixing with exponential distribution with parameters β and θ.

Y have exponential distribution with parameter λ. Assuming that there is a prior guess or estimate R_0. We develop various shrinkage estimators of R that incorporate this prior information. The performance of the new estimators is investigated and compared with the maximum likelihood estimator using Monte Carlo methods. It is found that some of these estimators are very successful in taking advantage of the prior estimate available. Recommendations concerning the use of these estimators are presented. Finally, we compare these results with A. Baklizi and W. A. Dayyeh approaches.