UNBIASED ESTIMATES FOR LINEAR REGRESSION WITH ROUNDOFF ERROR

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Abstract: We consider the linear regression model, where the residuals have zero mean and an otherwise unspecified distribution \( F \). Suppose that least squares estimates are formed by using rounded values of the dependent variables. We show that these are still unbiased, and that unbiased estimates for the moments and cumulants of \( F \) are given by applying Sheppard’s corrections to their estimates.

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