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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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