Erratum to: Comparisons of the $r - k$ class estimator to the ordinary least squares estimator under the Pitman's closeness criterion

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Wenxue Li, Hu Yang, Jibo Wu have pointed out the result that the $r - k$ class estimator is always better than the OLS estimator for all β in the sense of PC criterion in our paper entitled “Comparisons of the $r - k$ class estimator to the ordinary least squares estimator under the Pitman's closeness criterion” which was published in this journal Vol. 49, 2008, 503–512 is not satisfied on an example.

To examine the conditions given in Theorem of Mason et al. (1990), the eigenvalues of $H = (E'CE) [(I - E)' \Sigma^{-1} (I - E)]^{-1}$ are found on p. 508. However, the matrix $(I - E)' \Sigma^{-1} (I - E) = \sigma^{-2} T \begin{pmatrix} \Lambda_r^3 (2\Lambda_r + kI_r)^{-2} & 0 \\ 0' & \tilde{0} \end{pmatrix} T$ is a singular matrix. Therefore, neither the H nor the eigenvalues can be found. Therefore, the Theorem by Mason et al. (1990) can not be applied.

Numerical examples show that for some values of parameters, one estimator dominates the other. Hence, the comparison of the $r - k$ class estimator to the OLS estimator deserves to examine more precisely.

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