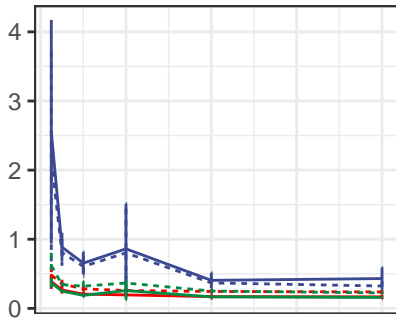
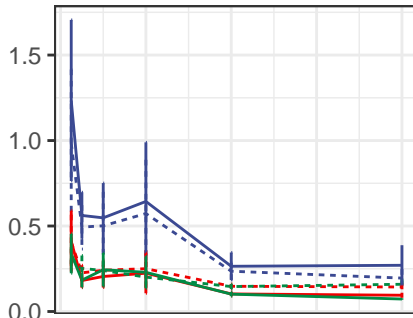
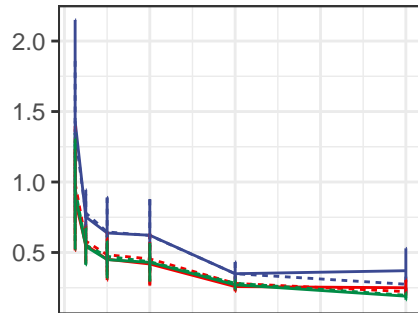
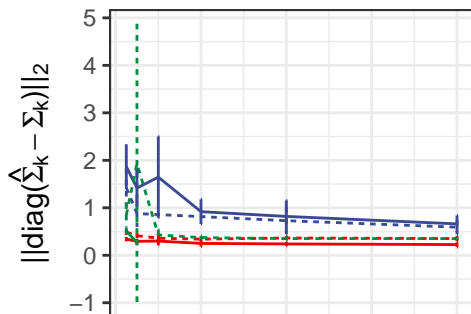
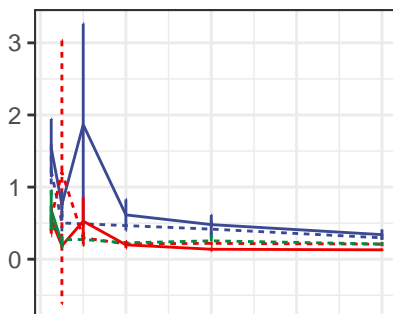
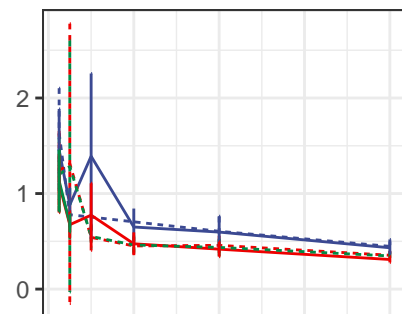
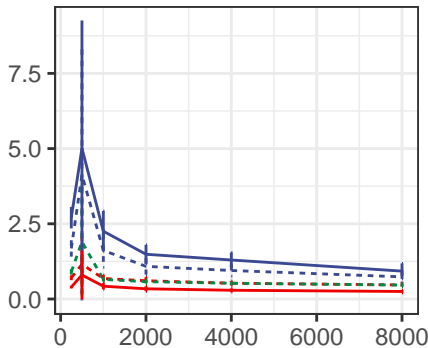
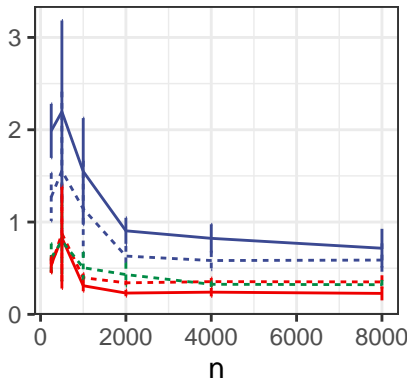
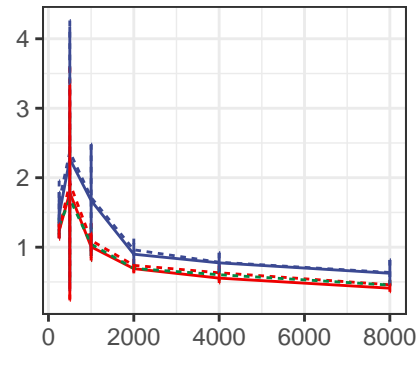
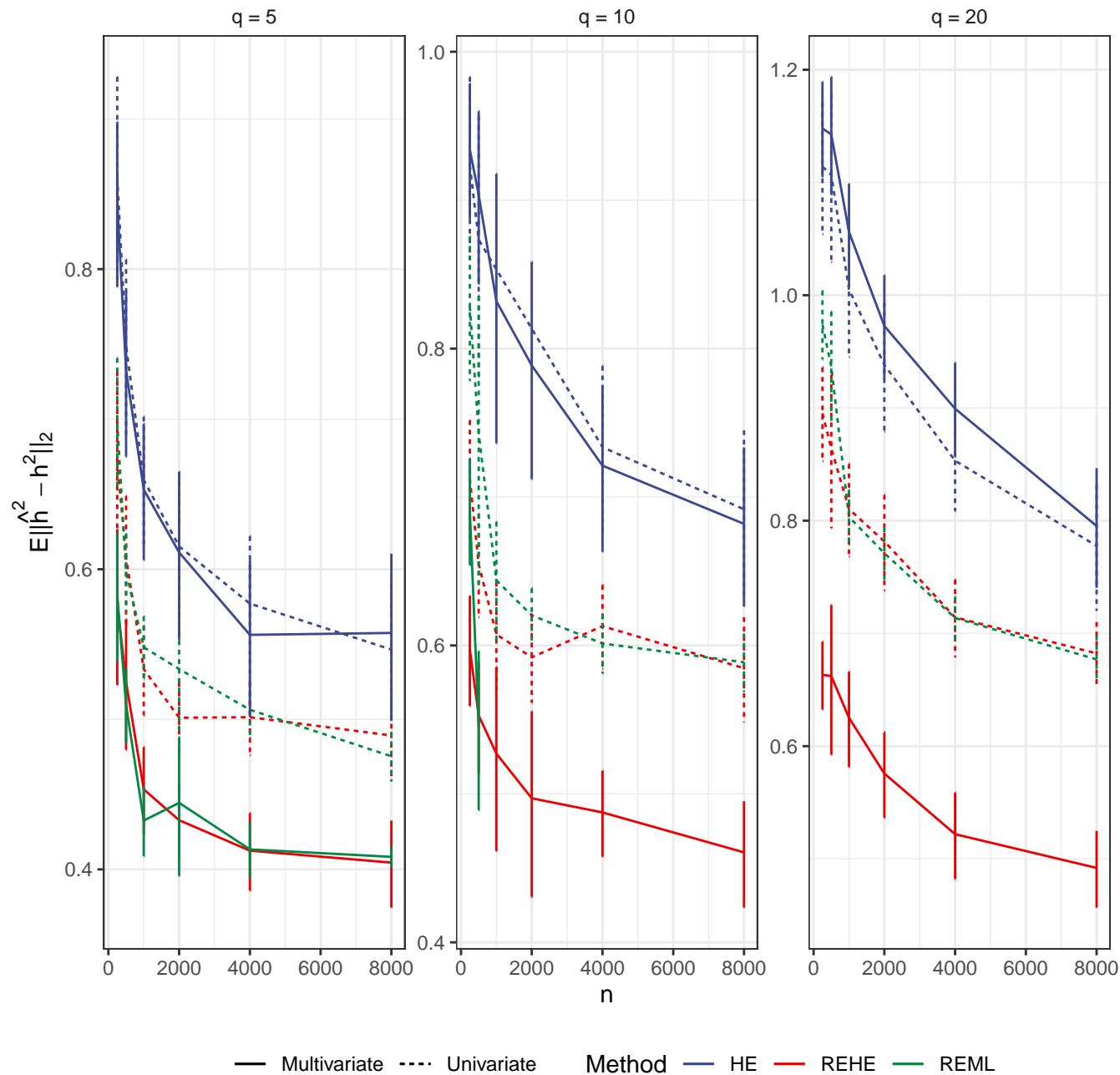
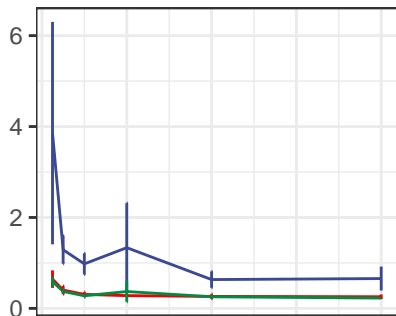
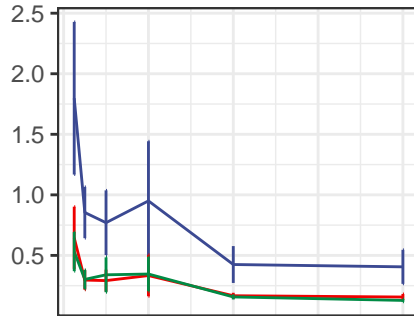
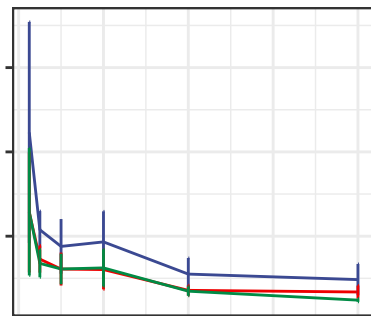
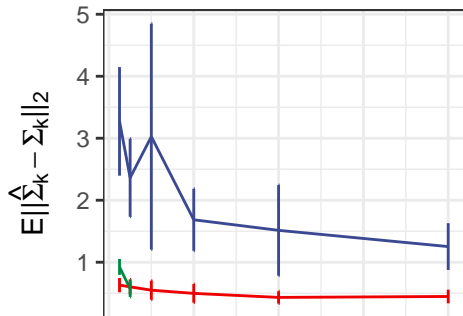
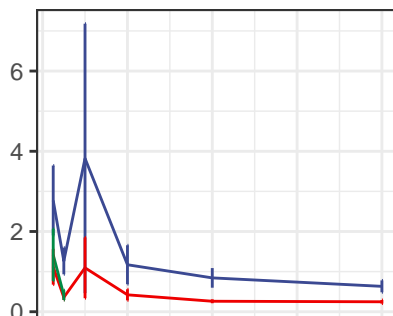
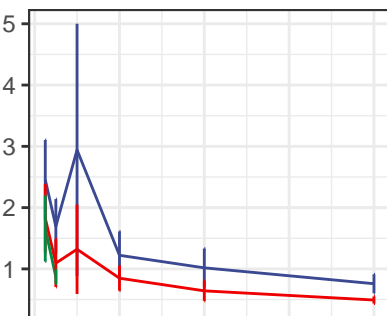
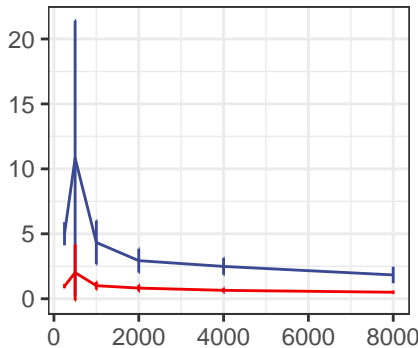
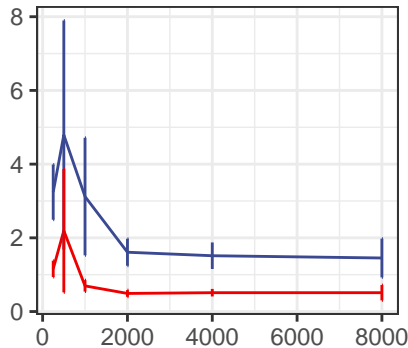
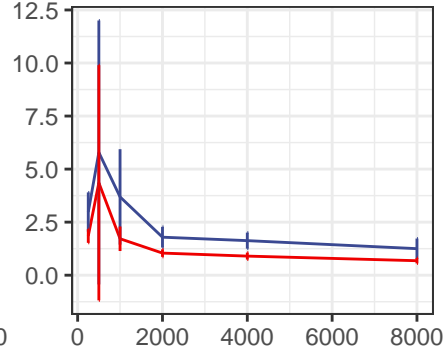


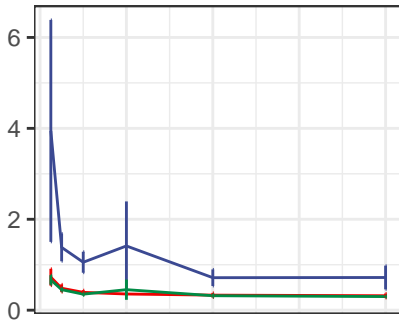
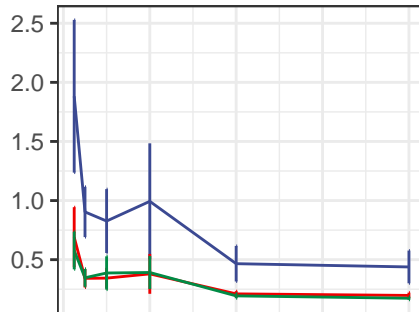
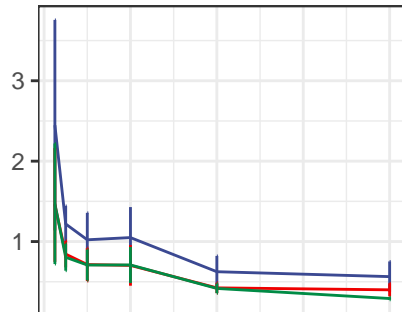
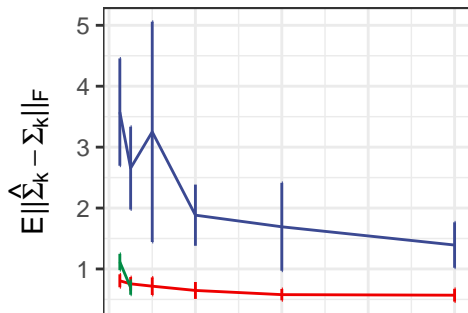
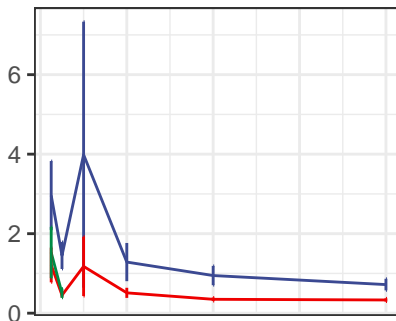
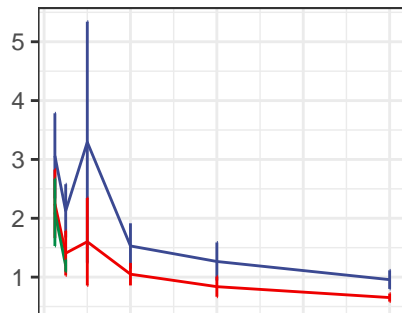
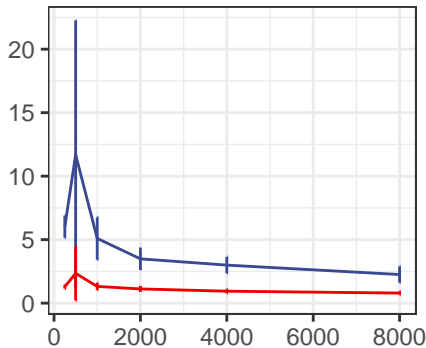
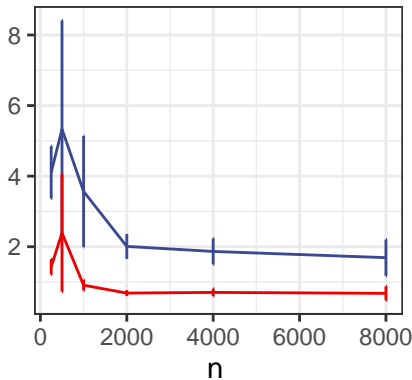
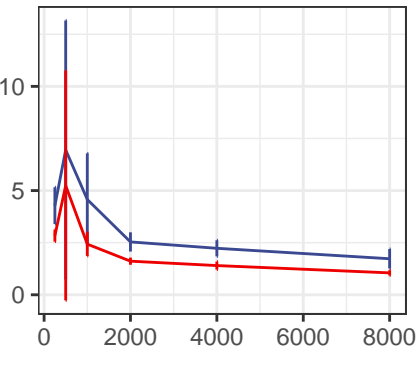
$q = 5 (\hat{\Sigma}_G)$  $q = 5 (\hat{\Sigma}_C)$  $q = 5 (\hat{\Sigma}_E)$  $q = 10 (\hat{\Sigma}_G)$  $q = 10 (\hat{\Sigma}_C)$  $q = 10 (\hat{\Sigma}_E)$  $q = 20 (\hat{\Sigma}_G)$  $q = 20 (\hat{\Sigma}_C)$  $q = 20 (\hat{\Sigma}_E)$ 

— Multivariate    - - - - Univariate    Method    — HE    — REHE    — REML

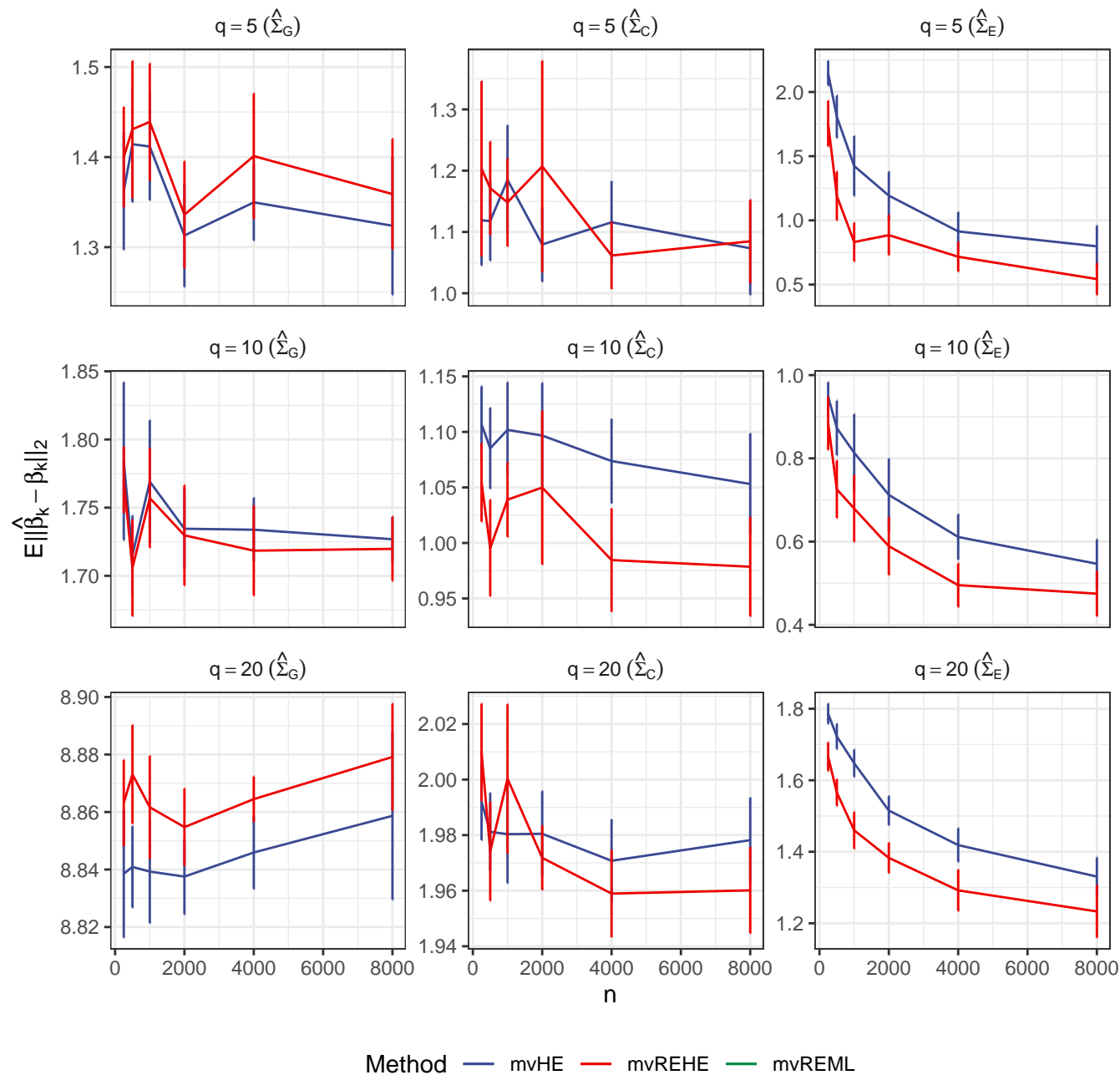


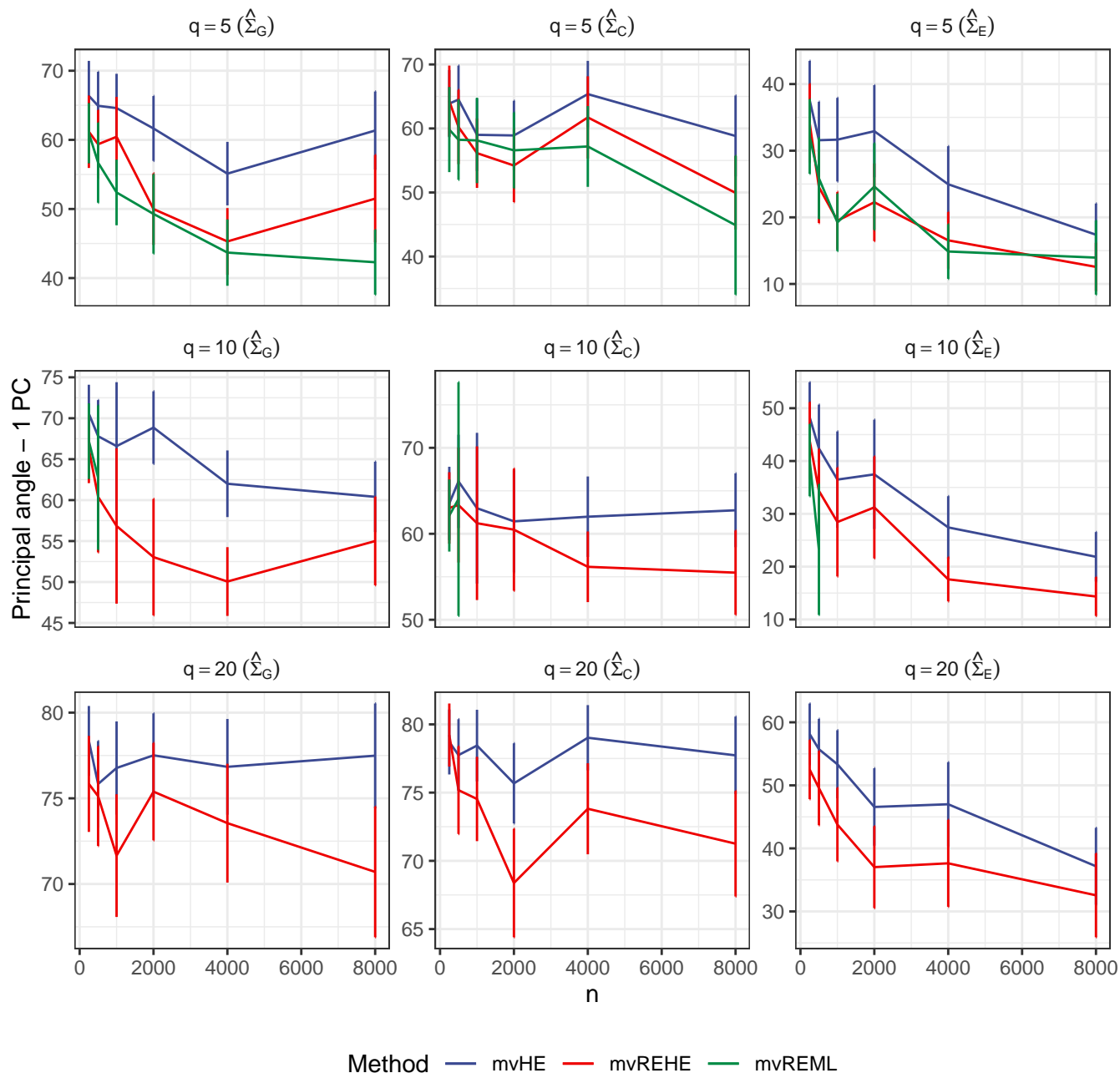
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Method    mvHE    mvREHE    mvREML

$q = 5 (\hat{\Sigma}_G)$  $q = 5 (\hat{\Sigma}_C)$  $q = 5 (\hat{\Sigma}_E)$  $q = 10 (\hat{\Sigma}_G)$  $q = 10 (\hat{\Sigma}_C)$  $q = 10 (\hat{\Sigma}_E)$  $q = 20 (\hat{\Sigma}_G)$  $q = 20 (\hat{\Sigma}_C)$  $q = 20 (\hat{\Sigma}_E)$ 

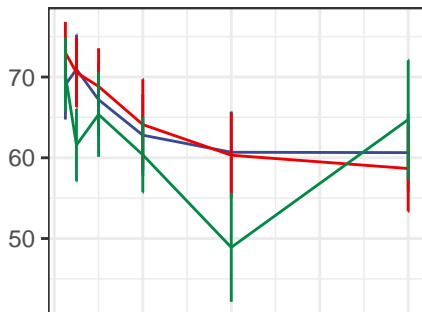
Method    — mvHE    — mvREHE    — mvREML



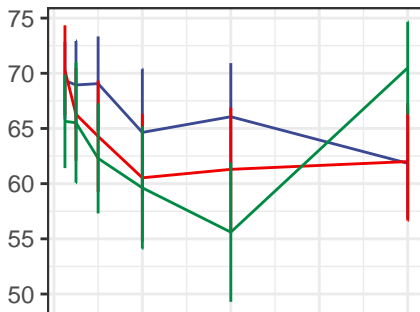


Max principal angle - 3 PCs

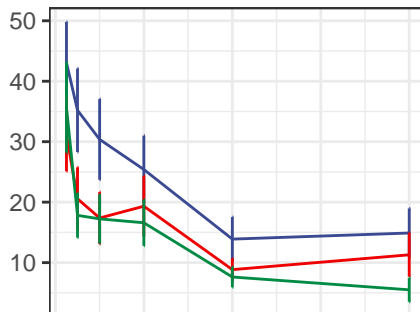
$q = 5 (\hat{\Sigma}_G)$



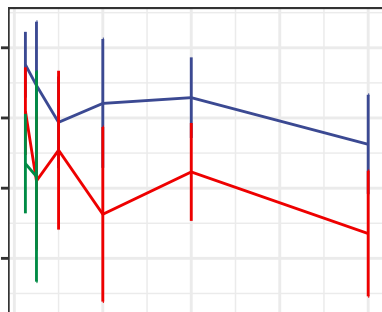
$q = 5 (\hat{\Sigma}_C)$



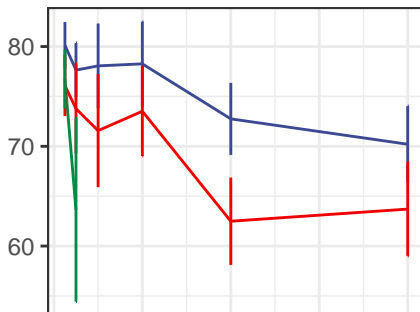
$q = 5 (\hat{\Sigma}_E)$



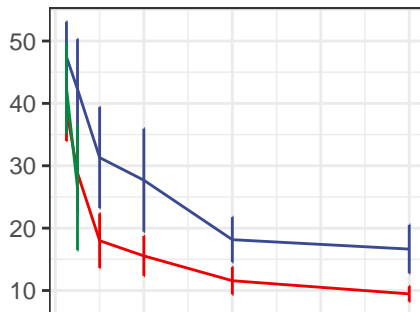
$q = 10 (\hat{\Sigma}_G)$



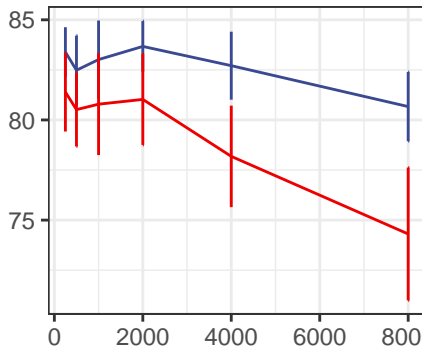
$q = 10 (\hat{\Sigma}_C)$



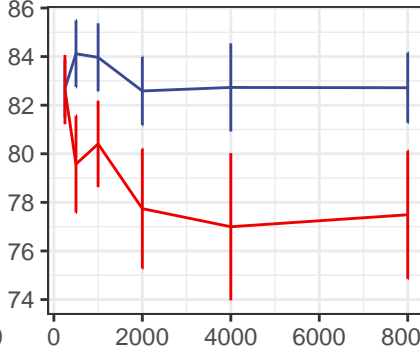
$q = 10 (\hat{\Sigma}_E)$



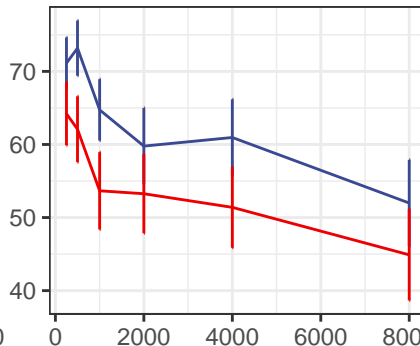
$q = 20 (\hat{\Sigma}_G)$



$q = 20 (\hat{\Sigma}_C)$



$q = 20 (\hat{\Sigma}_E)$



Method — mvHE — mvREHE — mvREML