Additional file 4 - Simulation results for comparison of dFNCHypergeo and dnoncenhypergeom in a conditional GLMM with exact likelihood

Figures A1-A3 show the results for bias of estimation of between-study variance τ^2, bias of estimates of overall effect measure $\hat{\theta}$ and estimated coverage of overall effect measure $\hat{\theta}$ in the random-effects model.
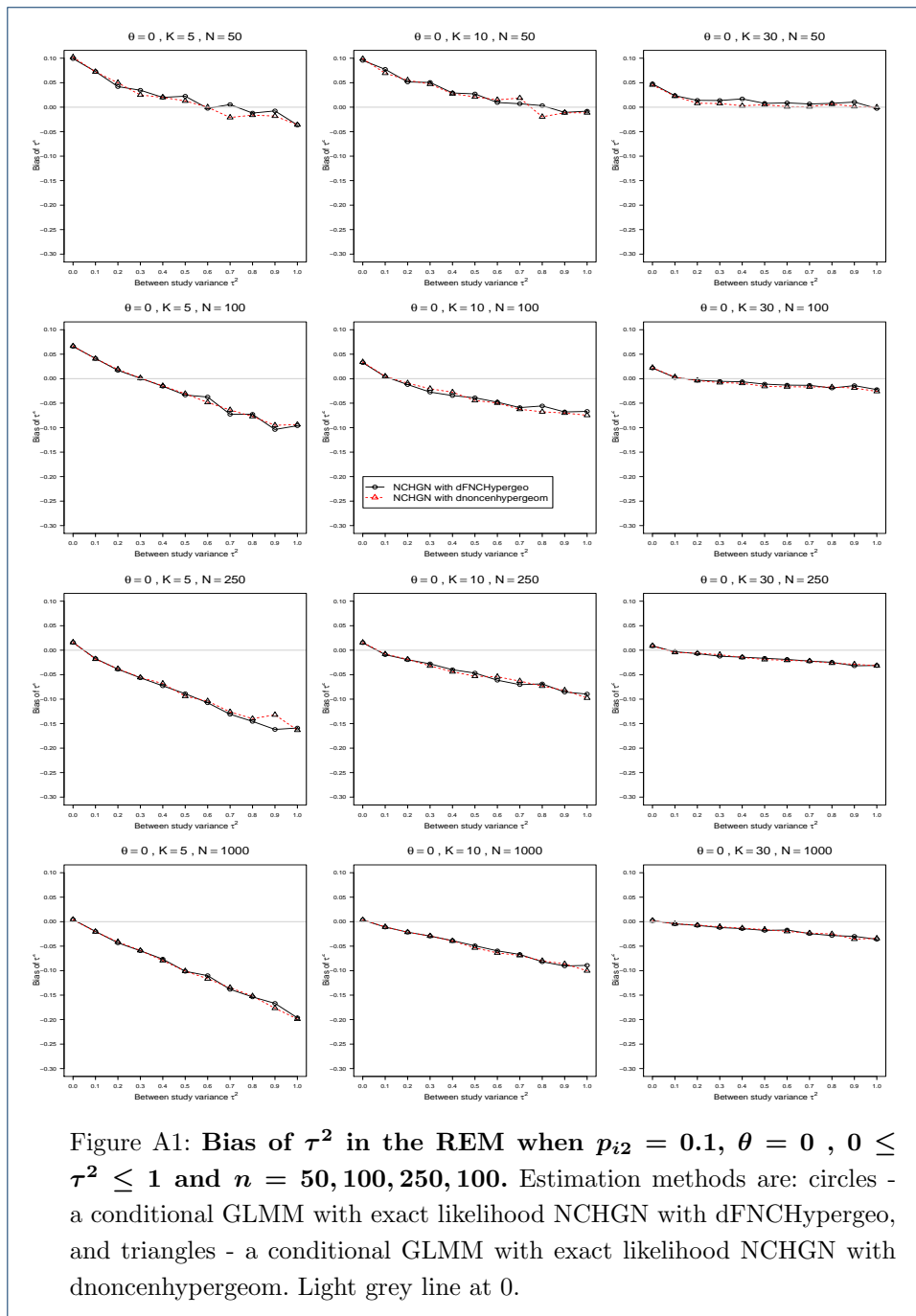
Figure A1: **Bias of τ^2 in the REM when $p_{i2} = 0.1$, $\theta = 0$, $0 \leq \tau^2 \leq 1$ and $n = 50, 100, 250, 100$.** Estimation methods are: circles - a conditional GLMM with exact likelihood NCHGN with dFNCHypergeo, and triangles - a conditional GLMM with exact likelihood NCHGN with dnoncenhypergeom. Light grey line at 0.

Figure A2: **Bias of θ in the REM when $p_{i2} = 0.1$, $\theta = 0$, $0 \leq \tau^2 \leq 1$ and $n = 50, 100, 250, 100$.** Estimation methods are: circles - a conditional GLMM with exact likelihood NCHGN with dFNCHypergeo, and triangles - a conditional GLMM with exact likelihood NCHGN with dnoncenhypergeom. Light grey line at 0.

Figure A3: **Estimated coverage of θ in the REM when $p_{i2} = 0.1$, $\theta = 0$, $0 \leq \tau^2 \leq 1$ and $n = 50, 100, 250, 100$.** The coverages are given at the nominal 95% level. Estimation methods are: circles - a conditional GLMM with exact likelihood NCHGN with dFNCHypergeo, and triangles - a conditional GLMM with exact likelihood NCHGN with dnoncenhypergeom. Light grey line at 0.95.