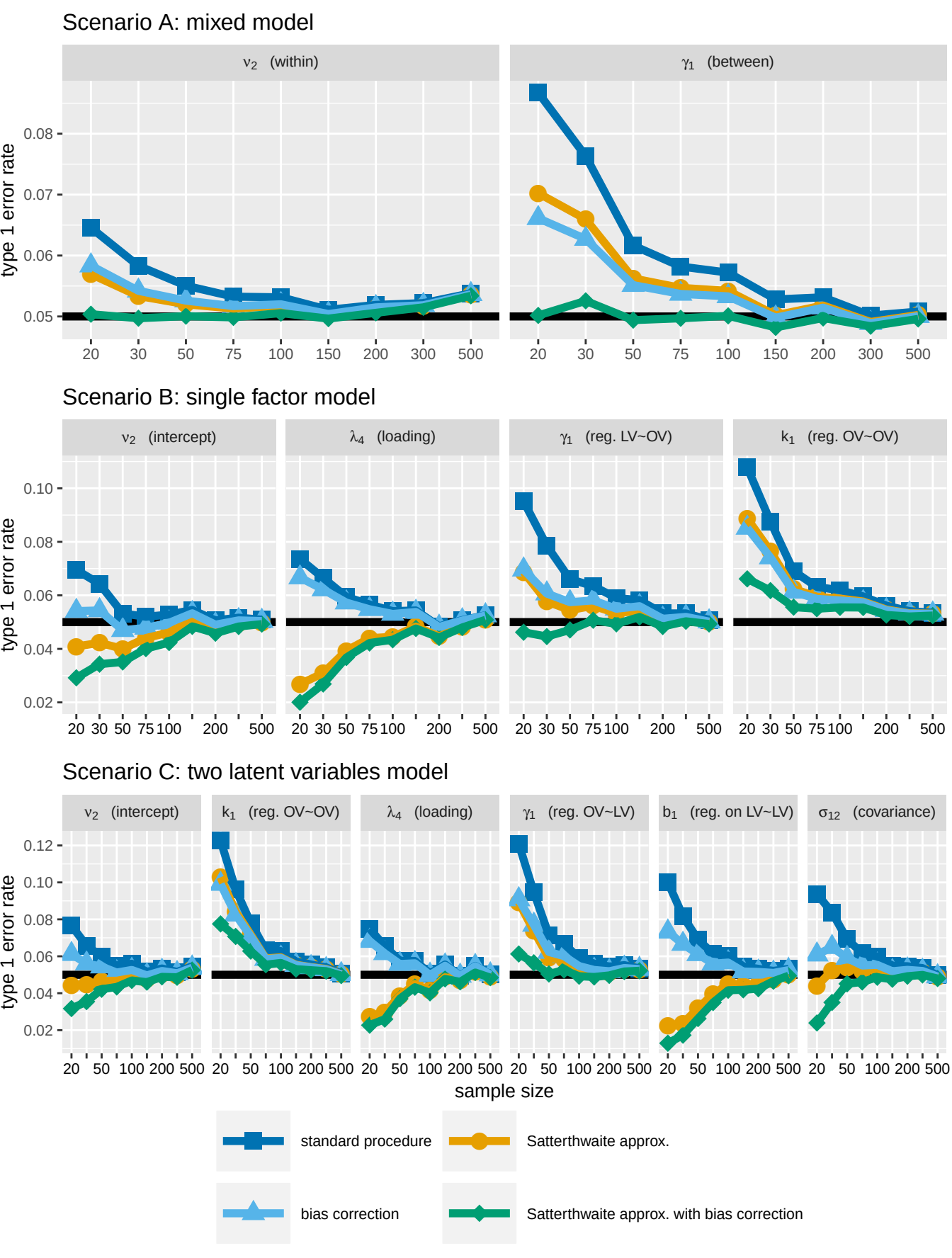
Scenario A: mixed model
ν2 (within)
γ1 (between)
type 1 error rate
0.08
0.07
0.06
0.05
20 30 50 75 100 150 200 300 500
Scenario B: single factor model
ν2 (intercept)
λ4 (loading)
γ1 (reg. LV~OV)
k1 (reg. OV~OV)
0.10
0.08
0.06
0.04
0.02
20 30 50 75 100 200 500
Scenario C: two latent variables model
ν2 (intercept)
k1 (reg. OV~OV)
λ4 (loading)
γ1 (reg. OV~LV)
b1 (reg. on LV~LV)
σ12 (covariance)
0.12
0.10
0.08
0.06
0.04
0.02
20 50 100 200 500
sample size
standard procedure
Satterthwaite approx.
bias correction
Satterthwaite approx. with bias correction