
Unit gamma mixed regression models for continuous bounded data

Supplementary Material

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2021

Web Appendix A

In this Appendix we present additional results from simulation studies presented in Section 4, where we consider five repeated measures.

Unit gamma mixed model with fixed precision

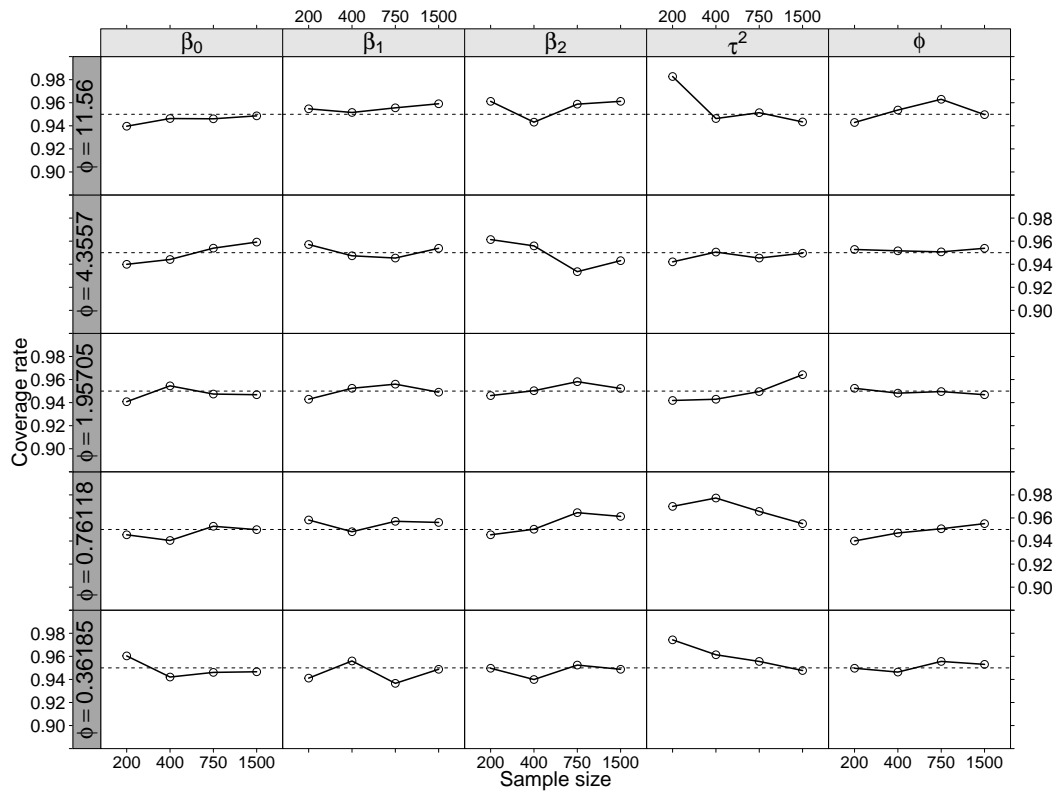


Figure 1: Coverage rate for each parameter by sample size and simulation scenarios with τ^2 fixed at 0.25 - Simulation study 1.

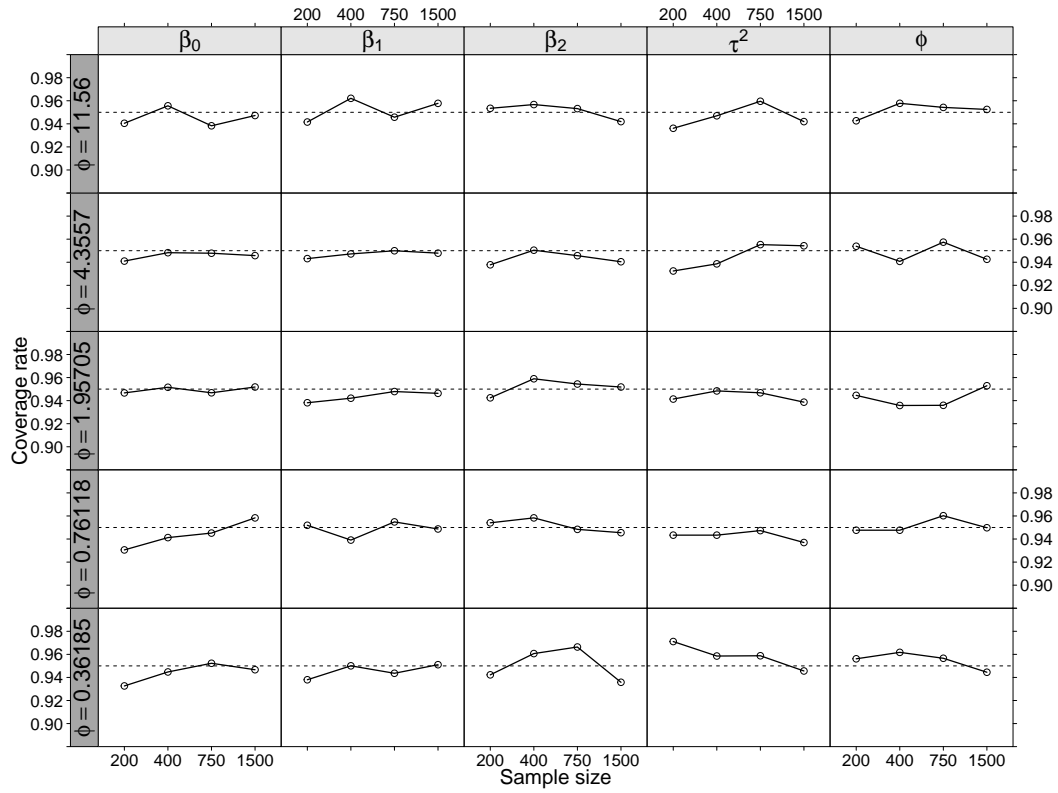


Figure 2: Coverage rate for each parameter by sample size and simulation scenarios with τ^2 fixed at 0.75 - Simulation study 1.

Unit gamma mixed model with random slope

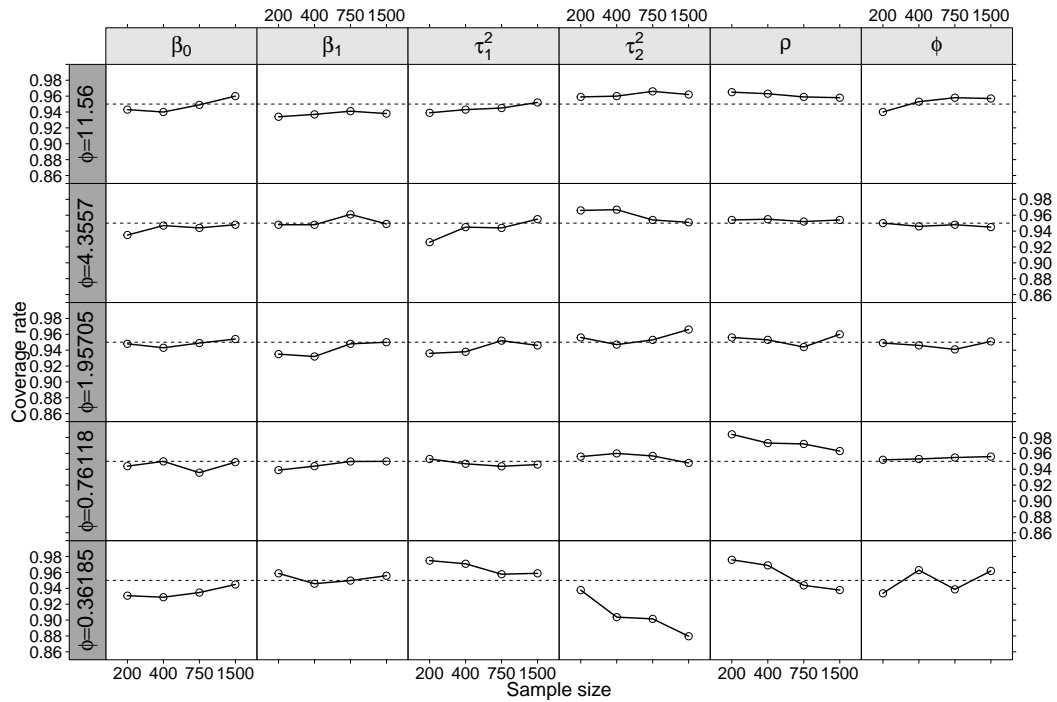


Figure 3: Coverage rate for each parameter by sample size and simulation scenarios with ρ fixed at 0.3 - Simulation study 2.

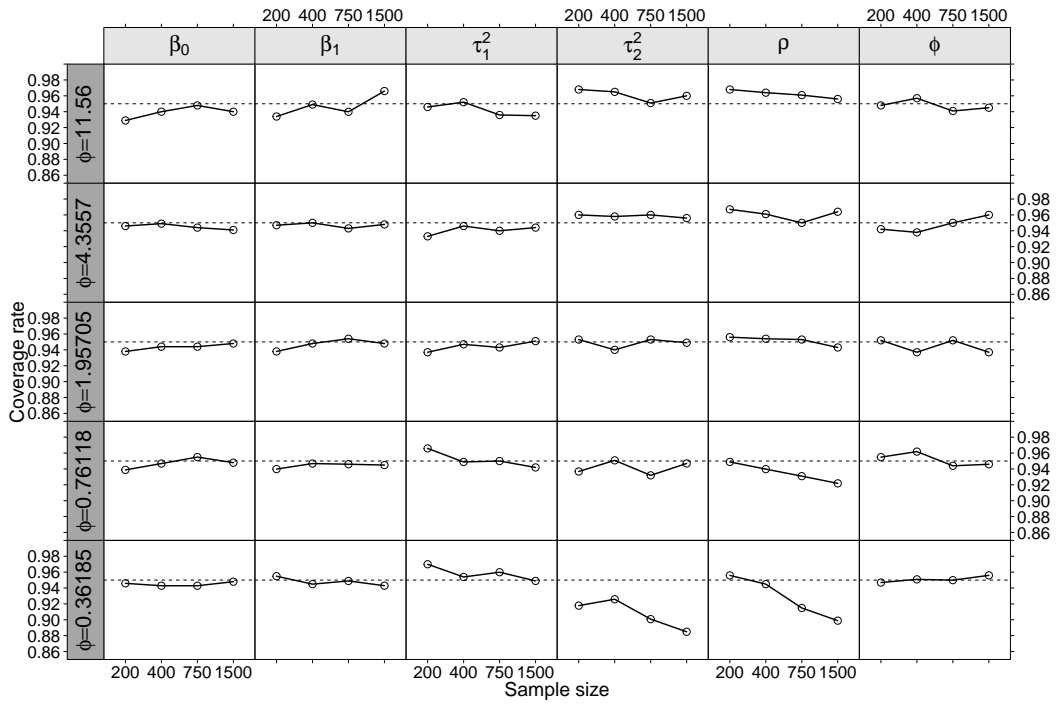


Figure 4: Coverage rate for each parameter by sample size and simulation scenarios with ρ fixed at 0.7 - Simulation study 2.

Web Appendix B

Here, we repeat the simulation study presented in Section 4, considering 15 repeated measures.

Unit gamma mixed model with fixed precision

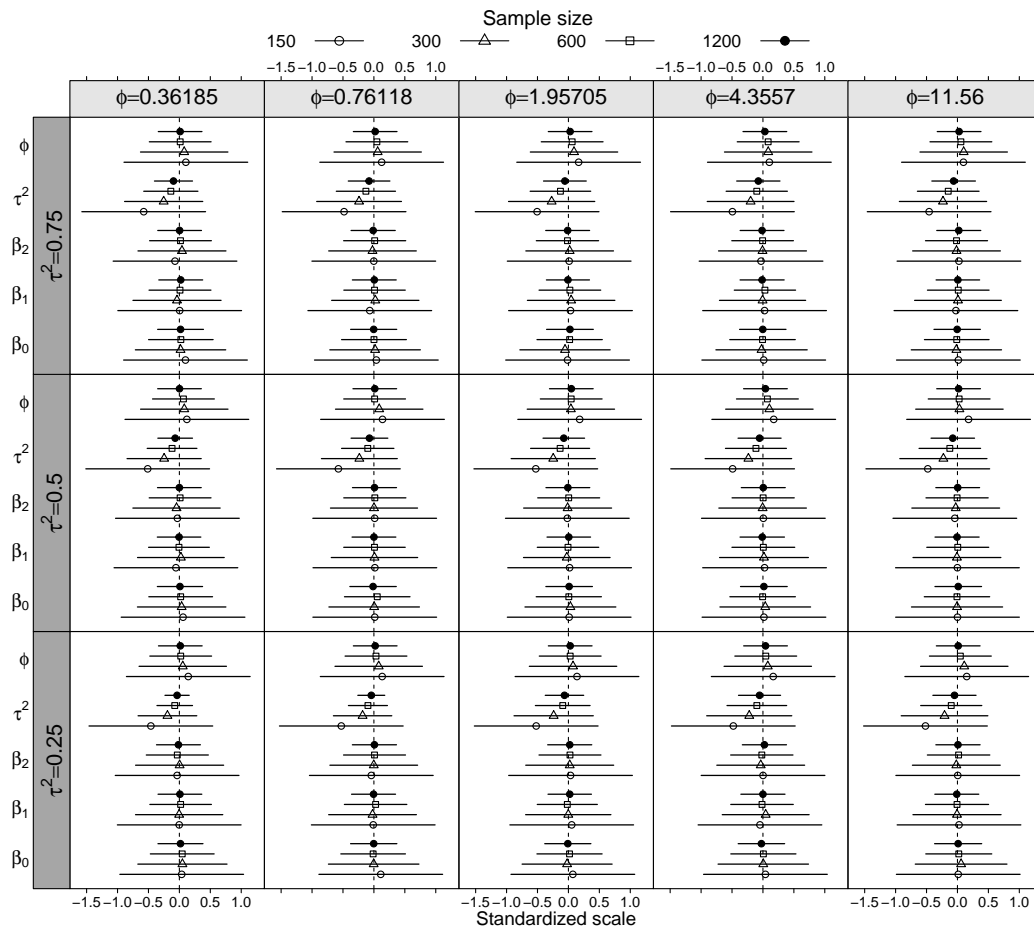


Figure 5: Average bias and confidence intervals on a standardized scale by sample size and simulation scenarios - Simulation study 1.

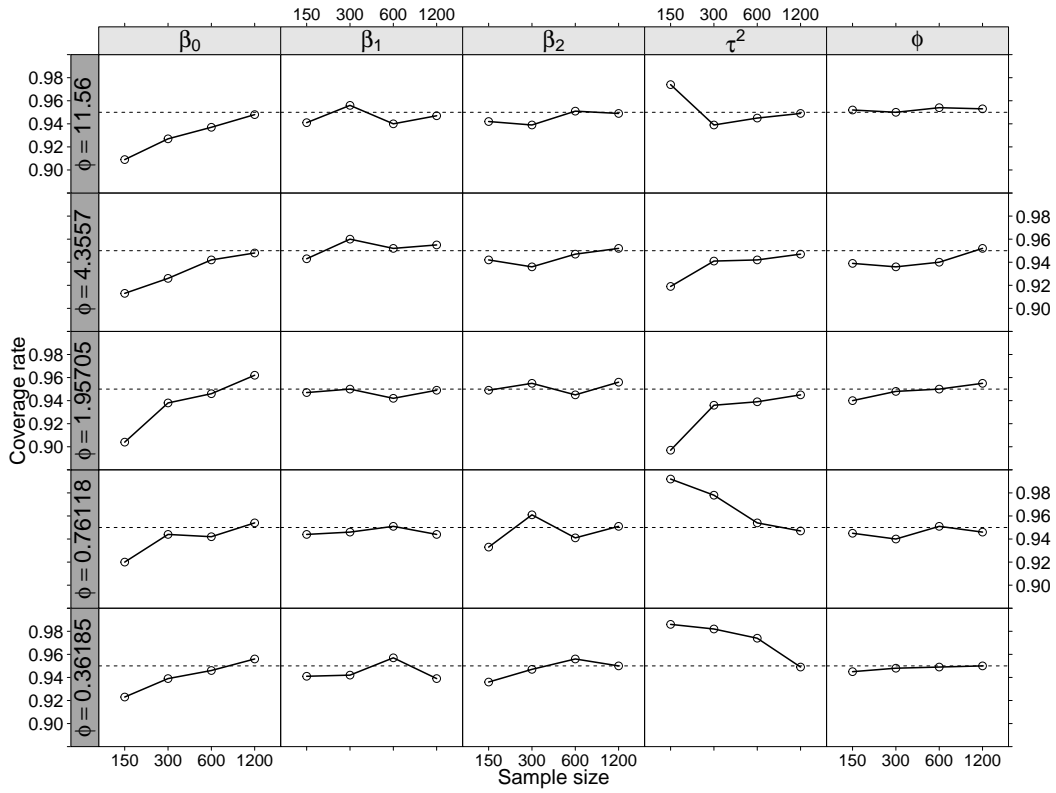


Figure 6: Coverage rate for each parameter by sample size and simulation scenarios with τ^2 fixed at 0.25 - Simulation study 1.

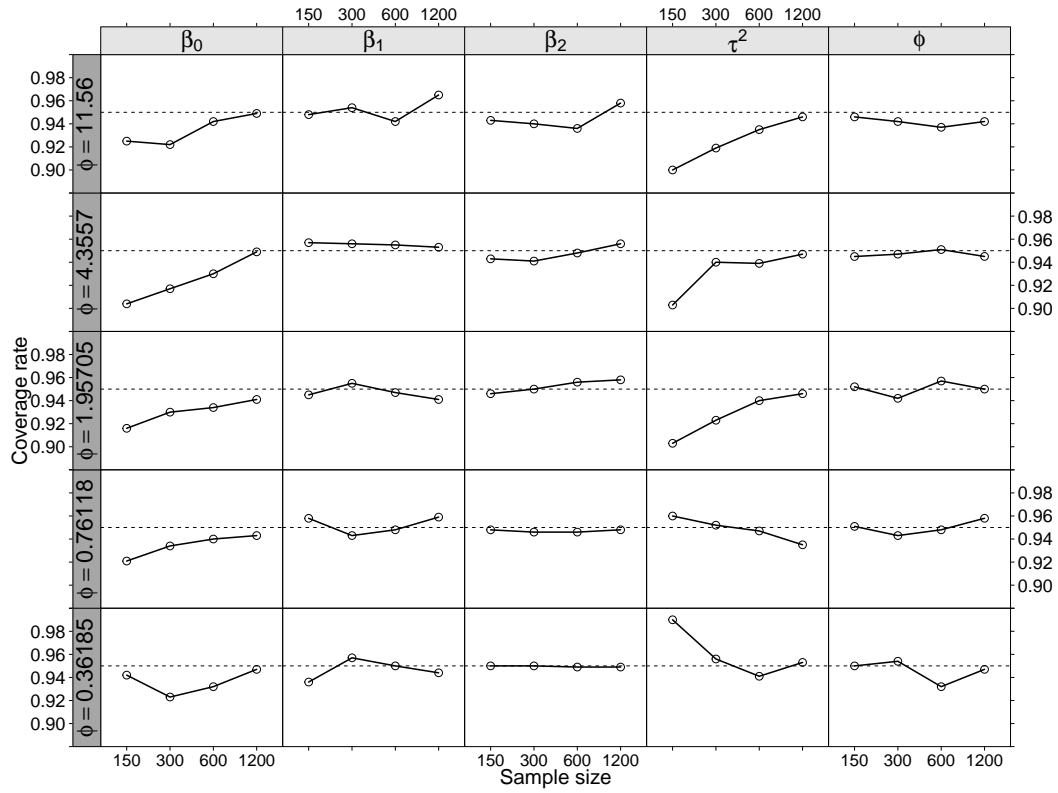


Figure 7: Coverage rate for each parameter by sample size and simulation scenarios with τ^2 fixed at 0.5 - Simulation study 1.

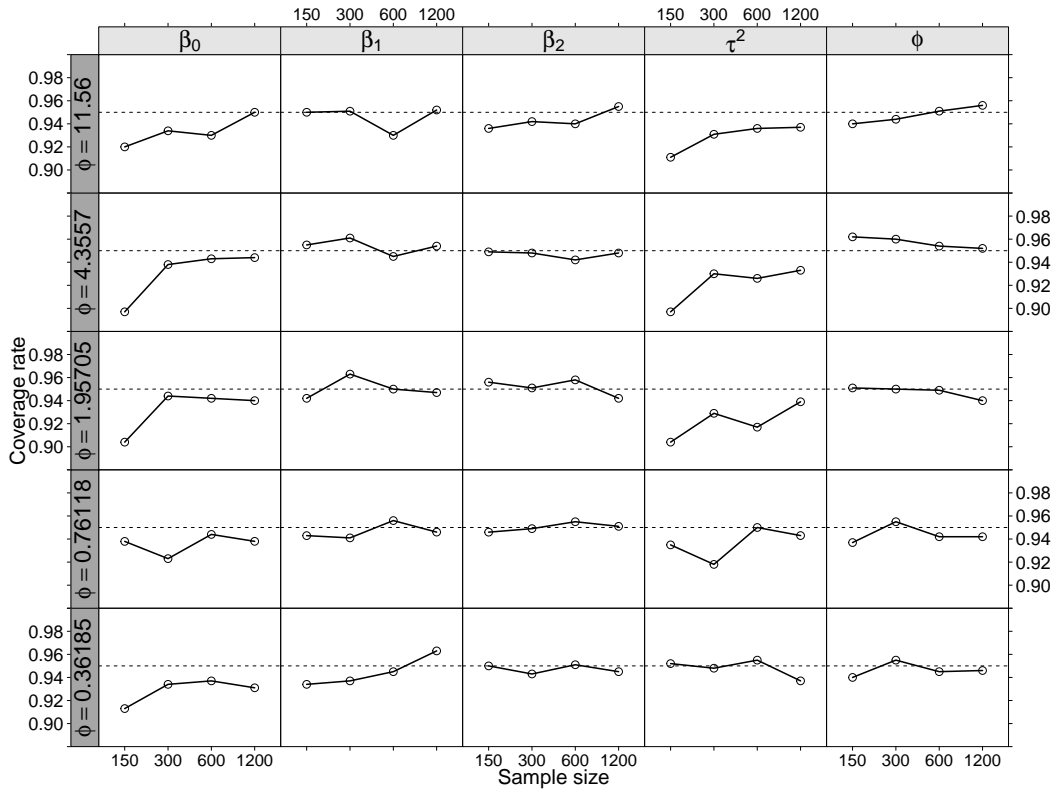


Figure 8: Coverage rate for each parameter by sample size and simulation scenarios with τ^2 fixed at 0.75 - Simulation study 1.

Unit gamma mixed model with random slope

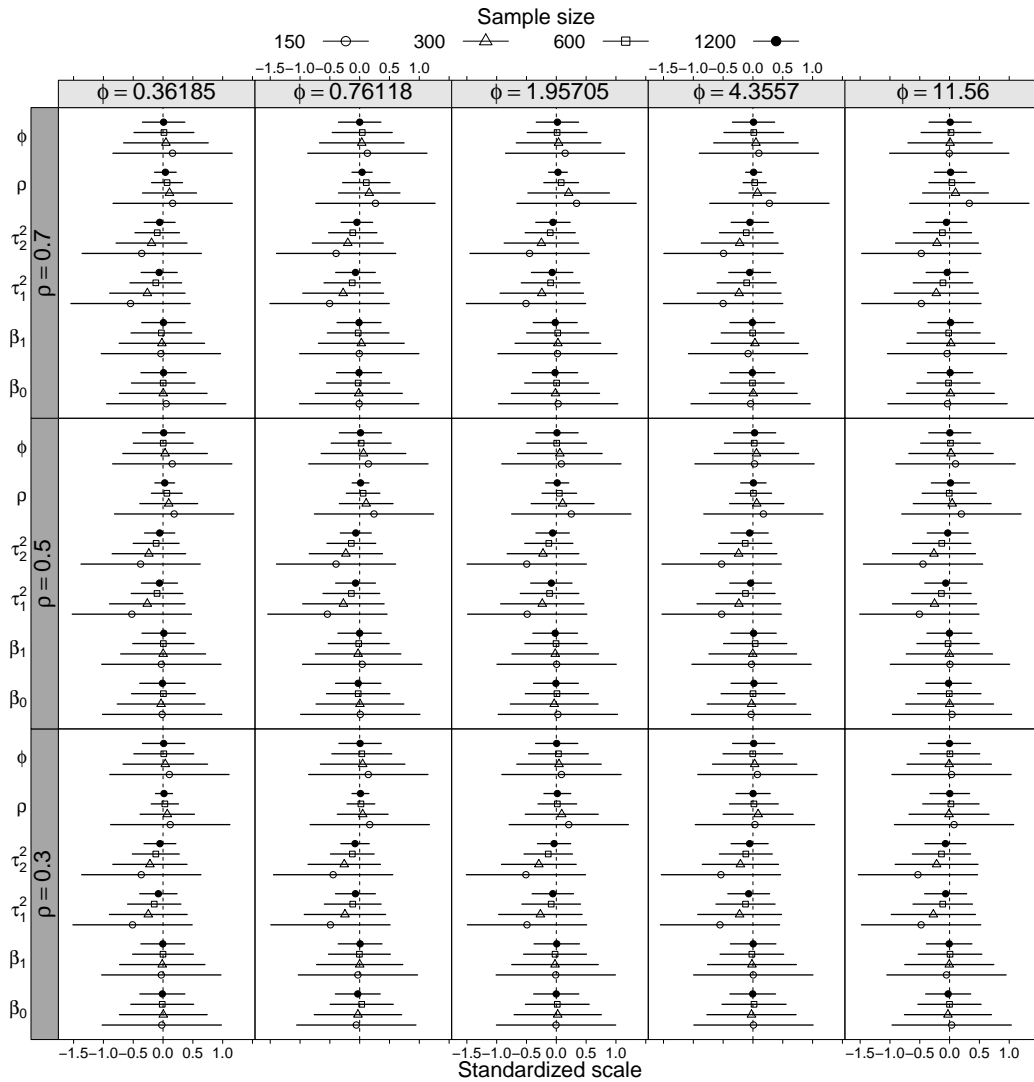


Figure 9: Average bias and confidence intervals by sample size and simulation scenarios - Simulation study 2.

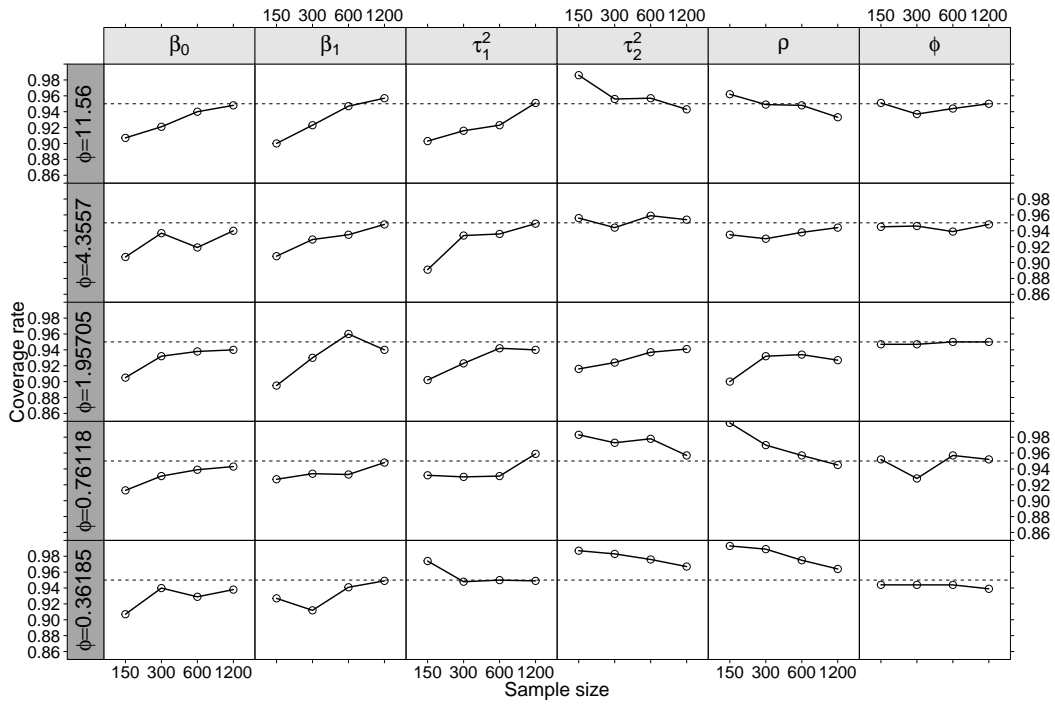


Figure 10: Coverage rate for each parameter by sample size and simulation scenarios with ρ fixed at 0.3 - Simulation study 2.

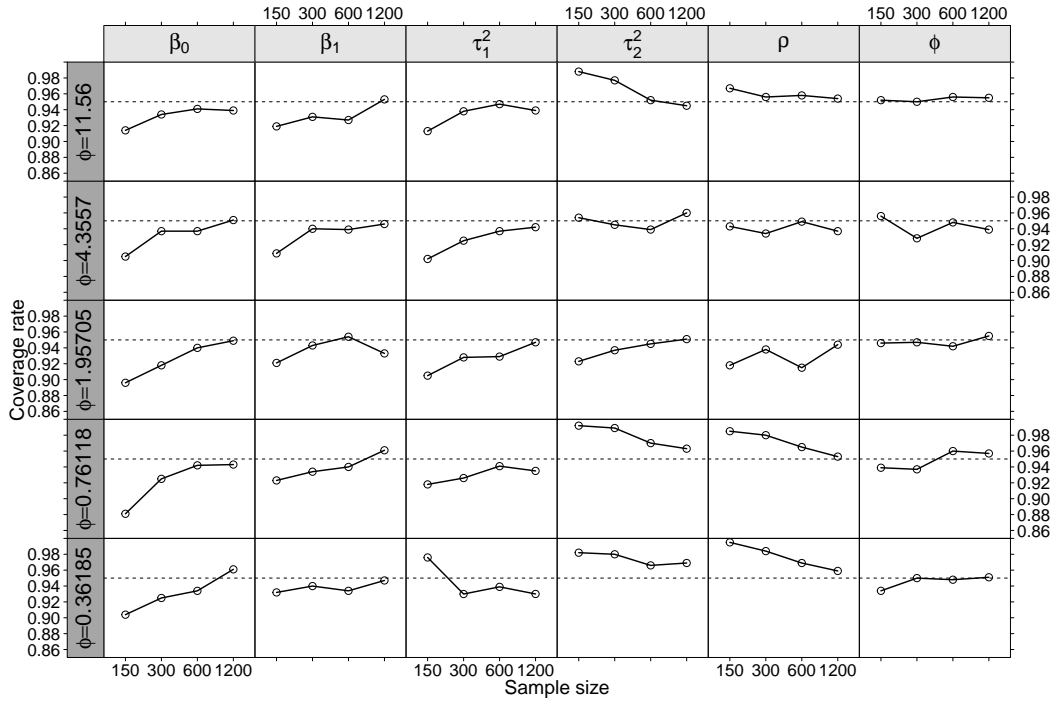


Figure 11: Coverage rate for each parameter by sample size and simulation scenarios with ρ fixed at 0.5 - Simulation study 2.

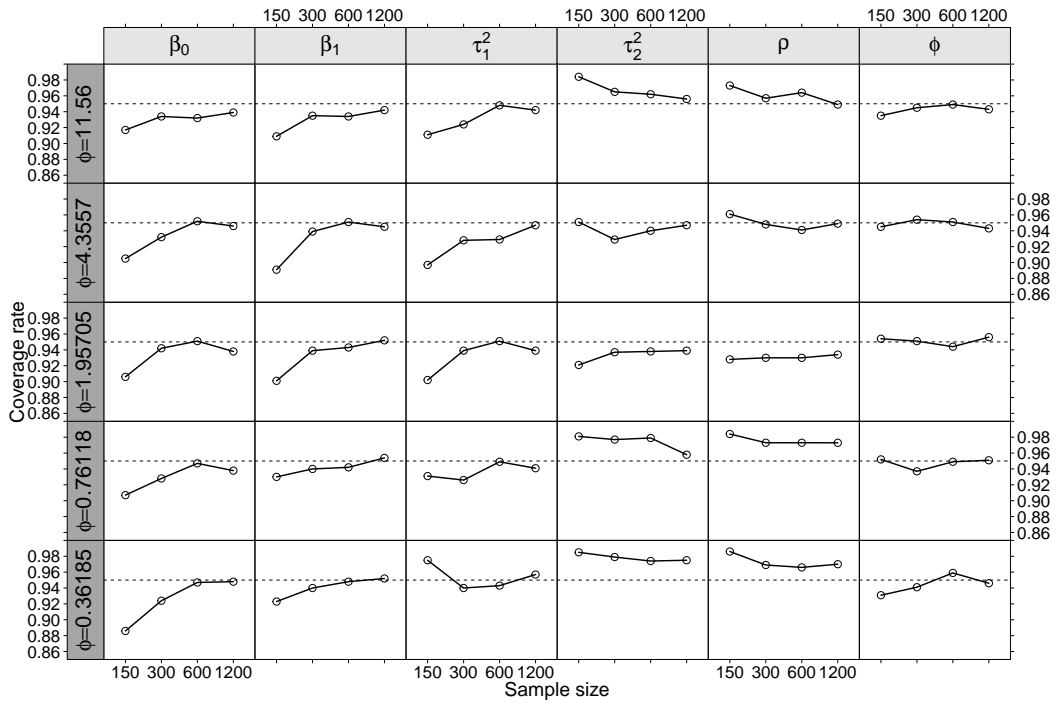


Figure 12: Coverage rate for each parameter by sample size and simulation scenarios with ρ fixed at 0.7 - Simulation study 2.

Unit gamma mixed model with varying precision

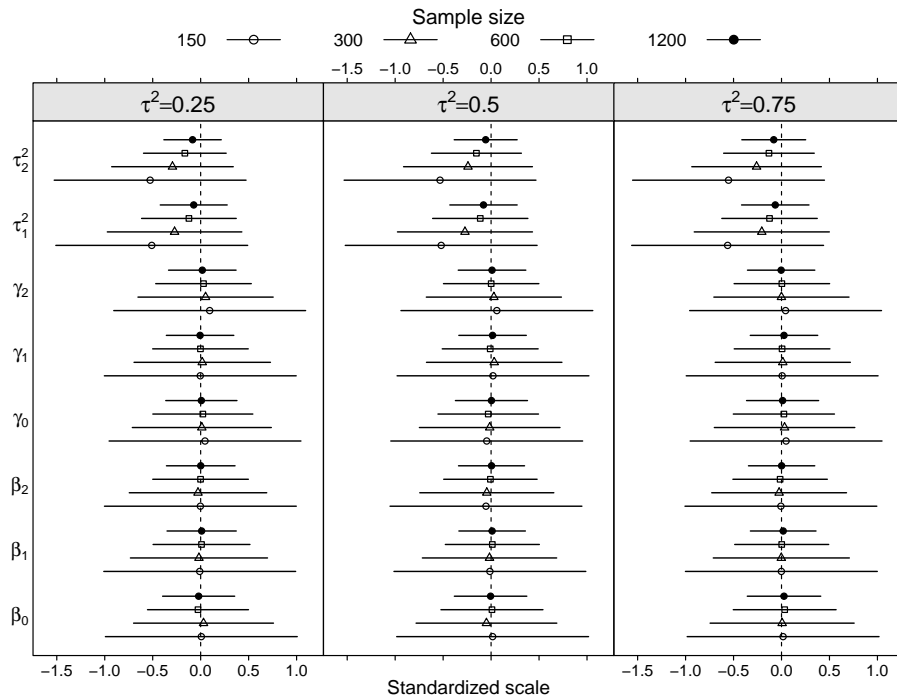


Figure 13: Average bias and confidence intervals by sample size and simulation scenarios - Simulation study 3.

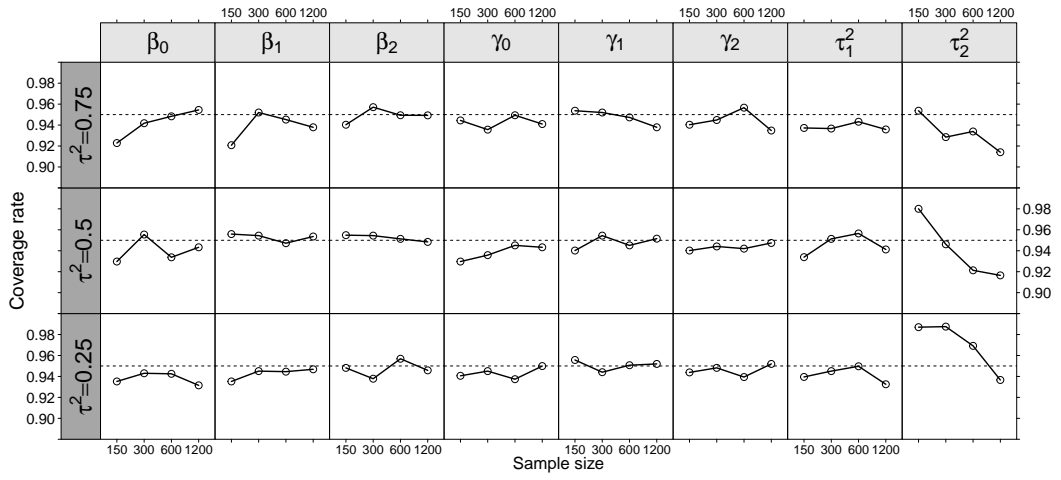


Figure 14: Coverage rate for each parameter by sample size and simulation scenarios - Simulation study 3.