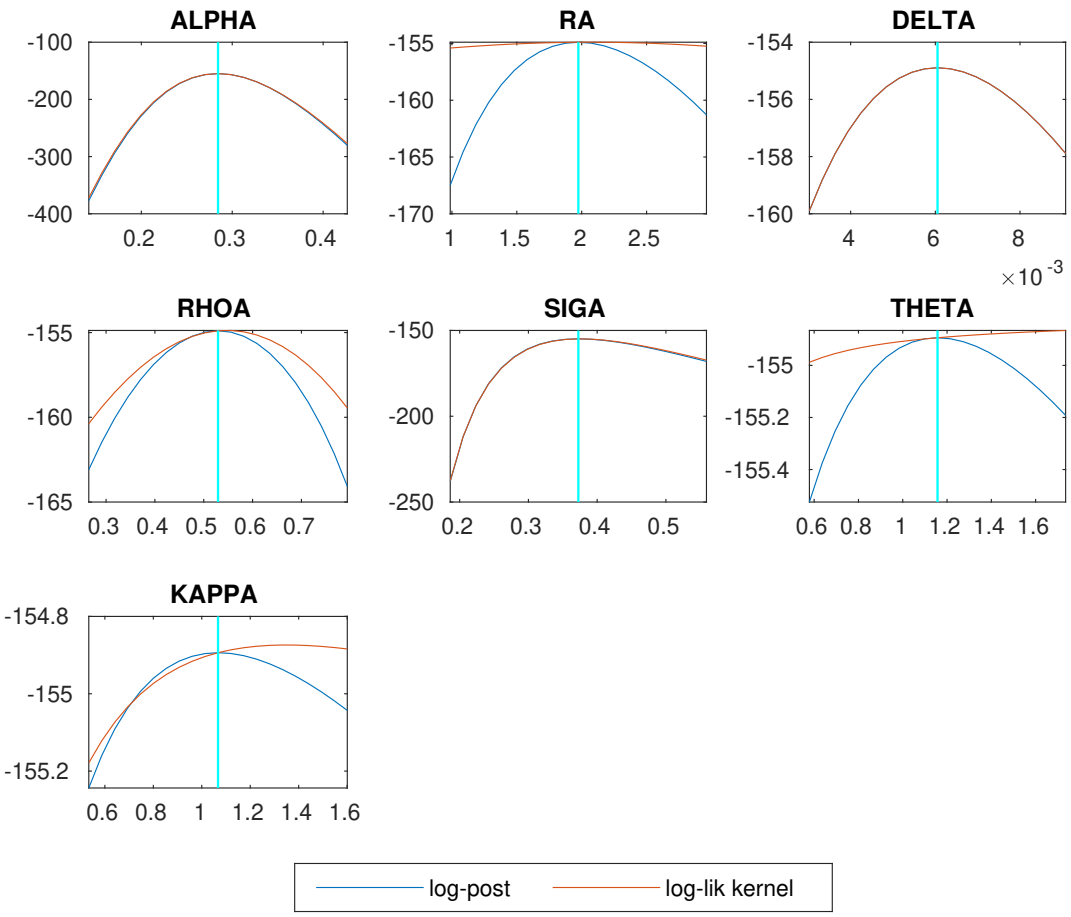

Figure 1: Check plots.

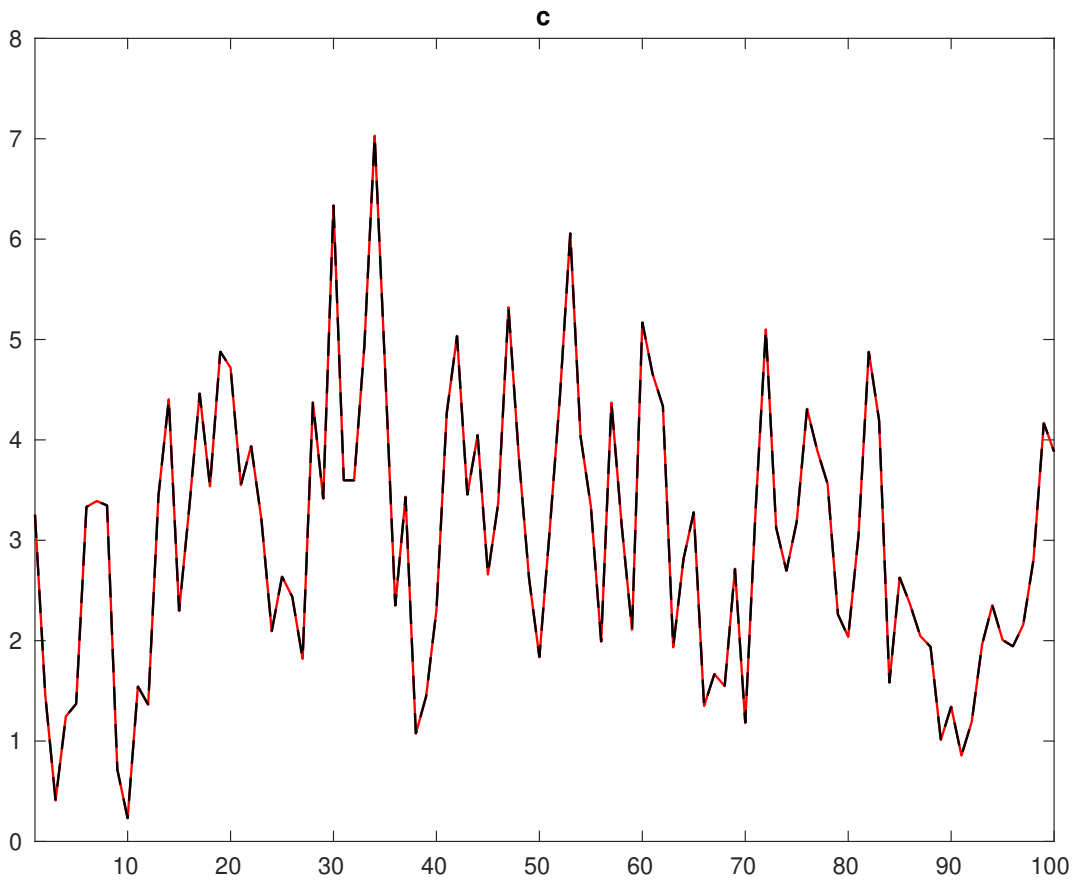

Figure 2: Historical and smoothed variables.

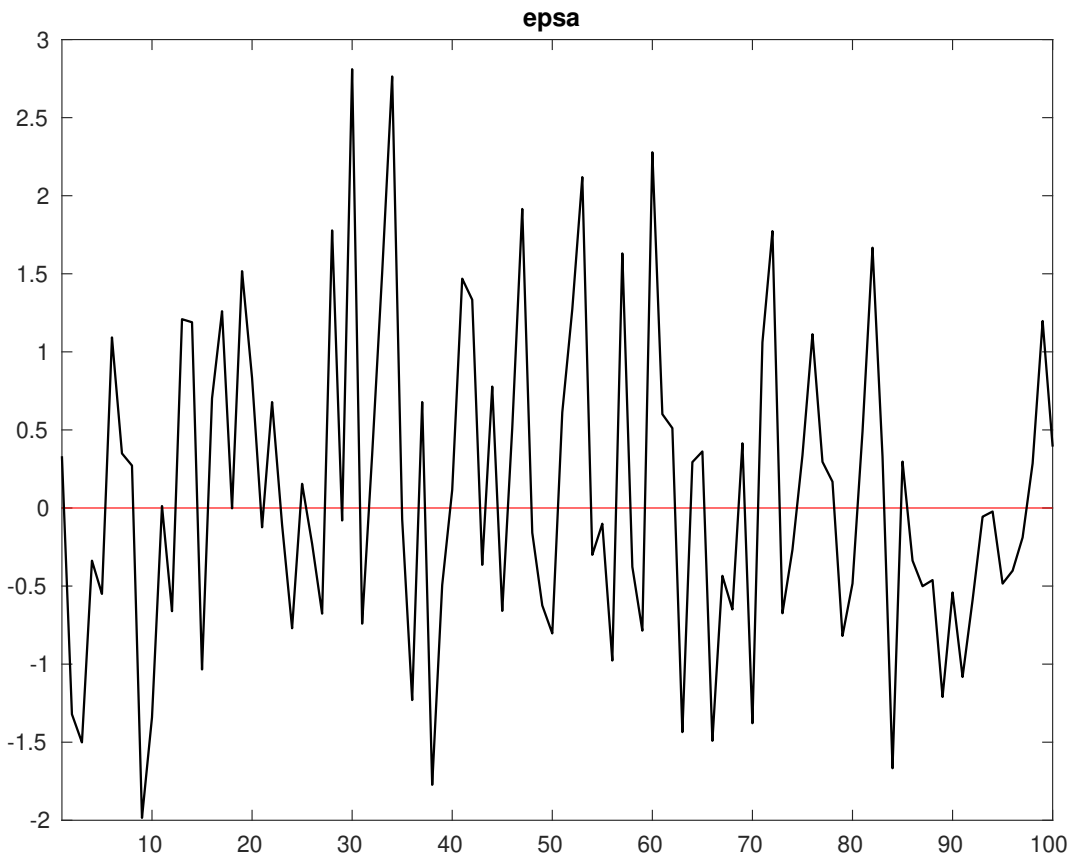

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	262.347	192.687	251.061	274.478
r_A	38.141	28.750	34.576	38.057
δ	467.113	365.346	423.954	470.027
ρ_A	45.023	45.086	39.505	45.005
σ_A	110.650	132.155	82.545	130.861
θ	50.035	48.788	48.649	47.975
κ	79.171	82.452	74.268	71.164

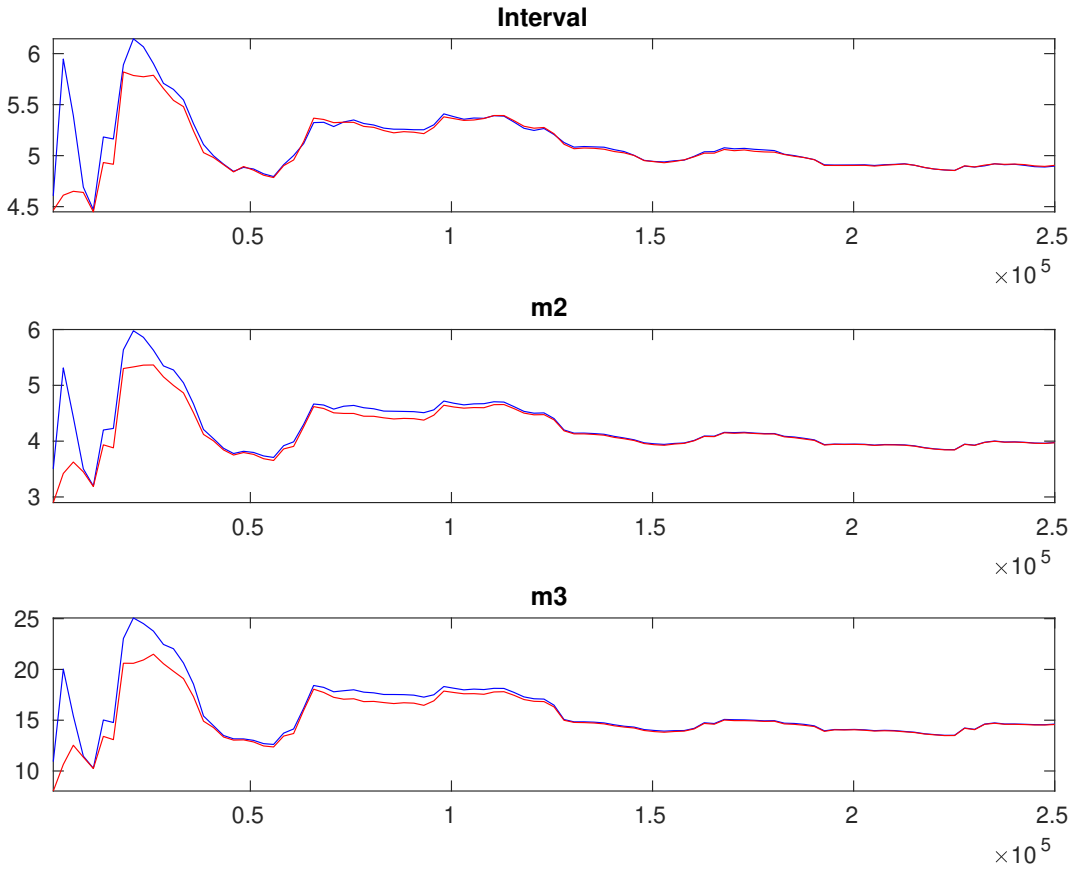

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.318	0.0429	0.2448	0.3855
r_A	gamm	2.000	0.2500	2.004	0.2503	1.6020	2.4211
δ	unif	0.500	0.2887	0.015	0.0110	0.0000	0.0299
ρ_A	beta	0.500	0.1000	0.543	0.0679	0.4318	0.6549
σ_A	invg	0.600	4.0000	0.390	0.0617	0.2935	0.4775
θ	gamm	1.500	0.7500	1.524	0.7564	0.3606	2.6442
κ	gamm	2.000	1.5000	2.089	1.5308	0.0374	4.2002

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2844	0.0489
r_A	gamm	2.000	0.2500	1.9742	0.2486
δ	unif	0.500	0.2887	0.0061	0.0072
ρ_A	beta	0.500	0.1000	0.5293	0.0688
σ_A	invg	0.600	4.0000	0.3726	0.0460
θ	gamm	1.500	0.7500	1.1570	0.6581
κ	gamm	2.000	1.5000	1.0671	1.1617

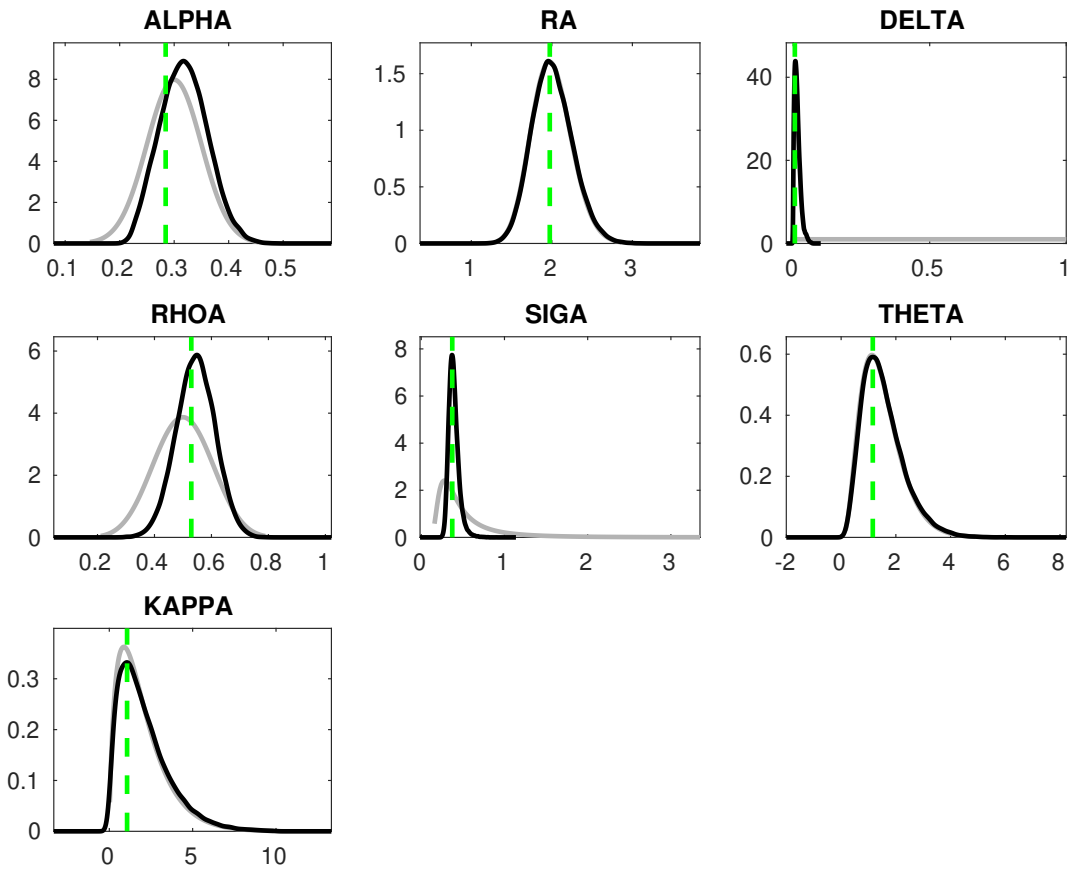

Figure 5: Priors and posteriors.

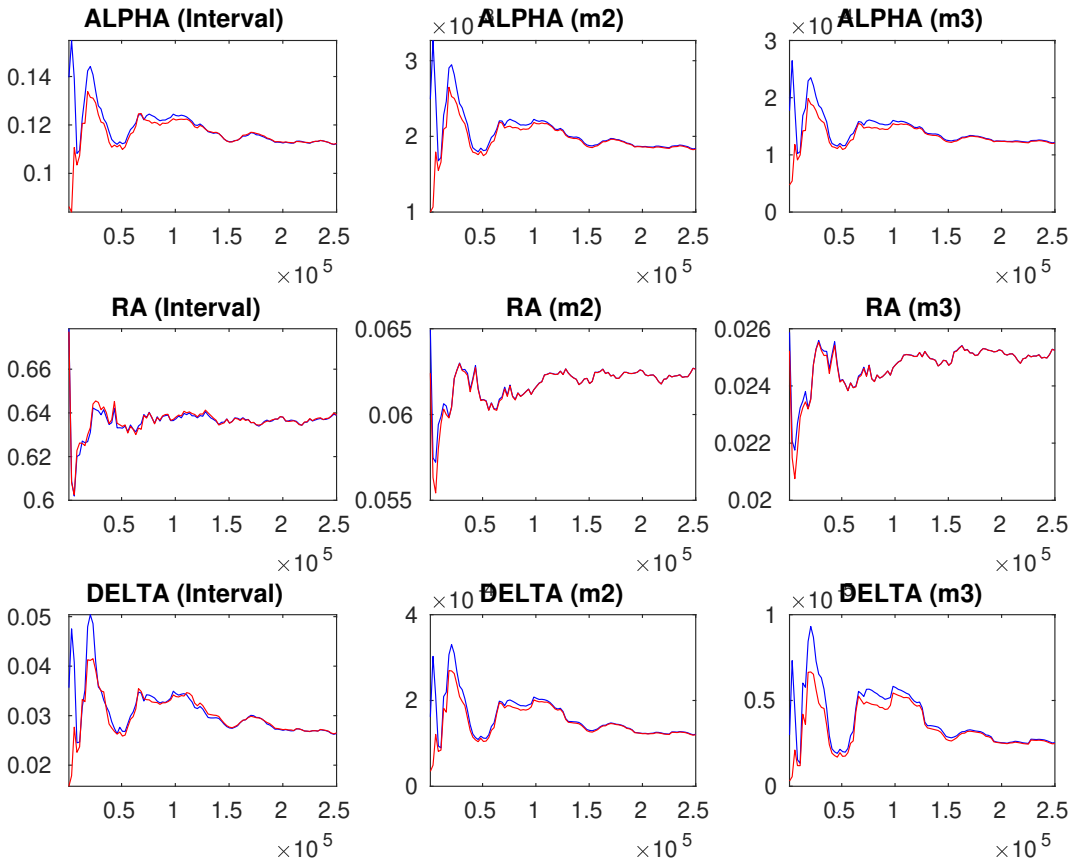

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

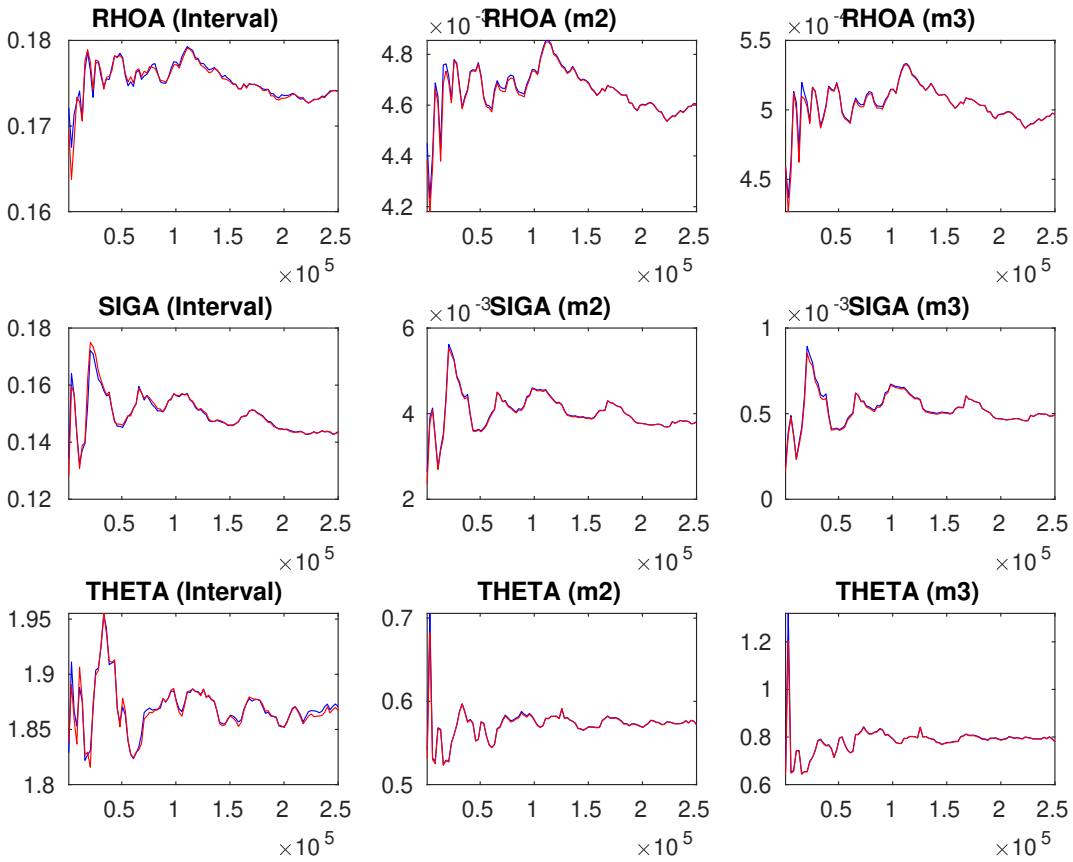

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

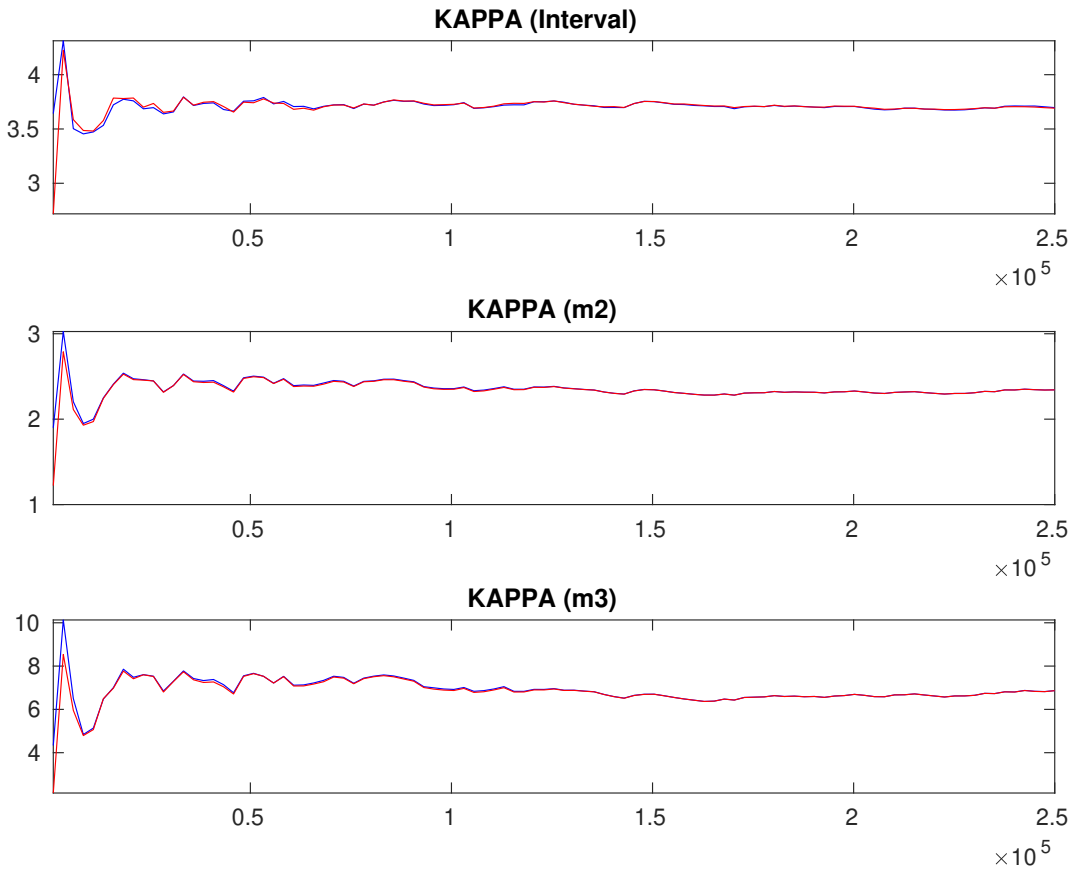

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.