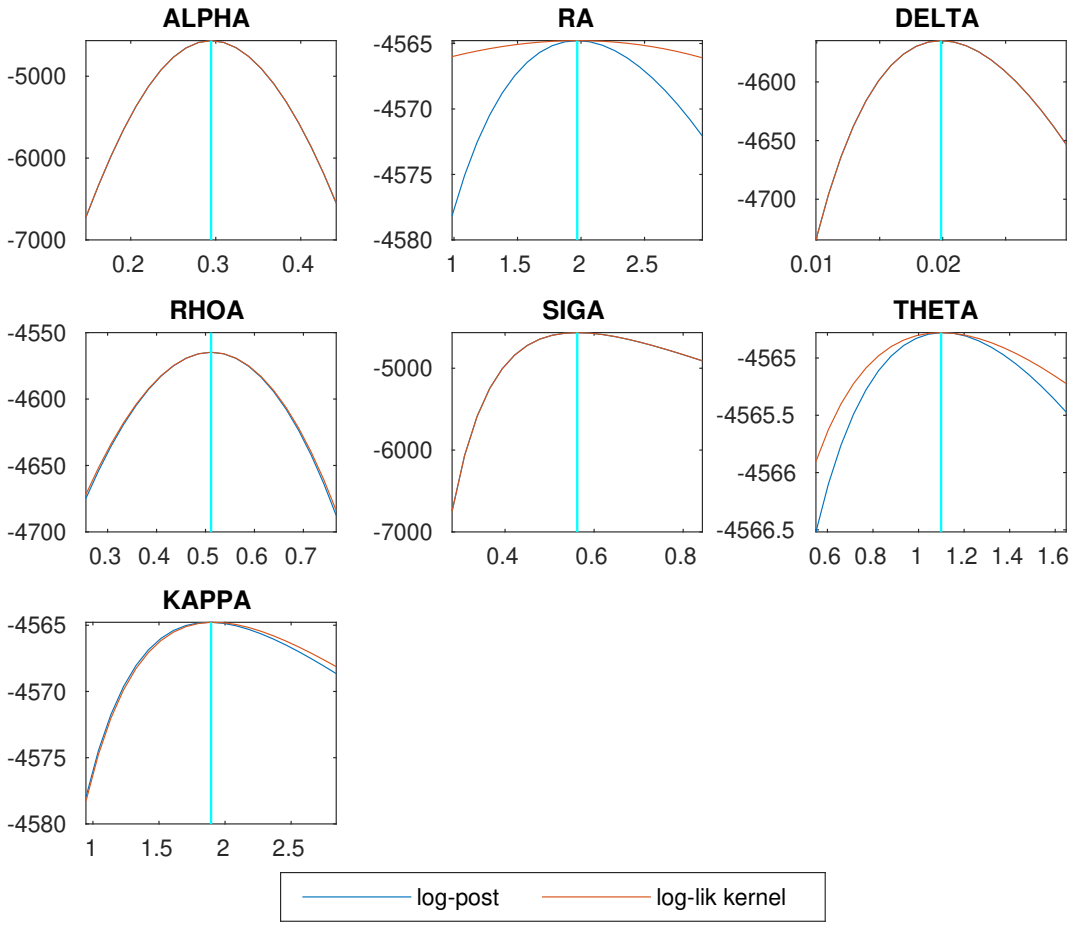

Figure 1: Check plots.

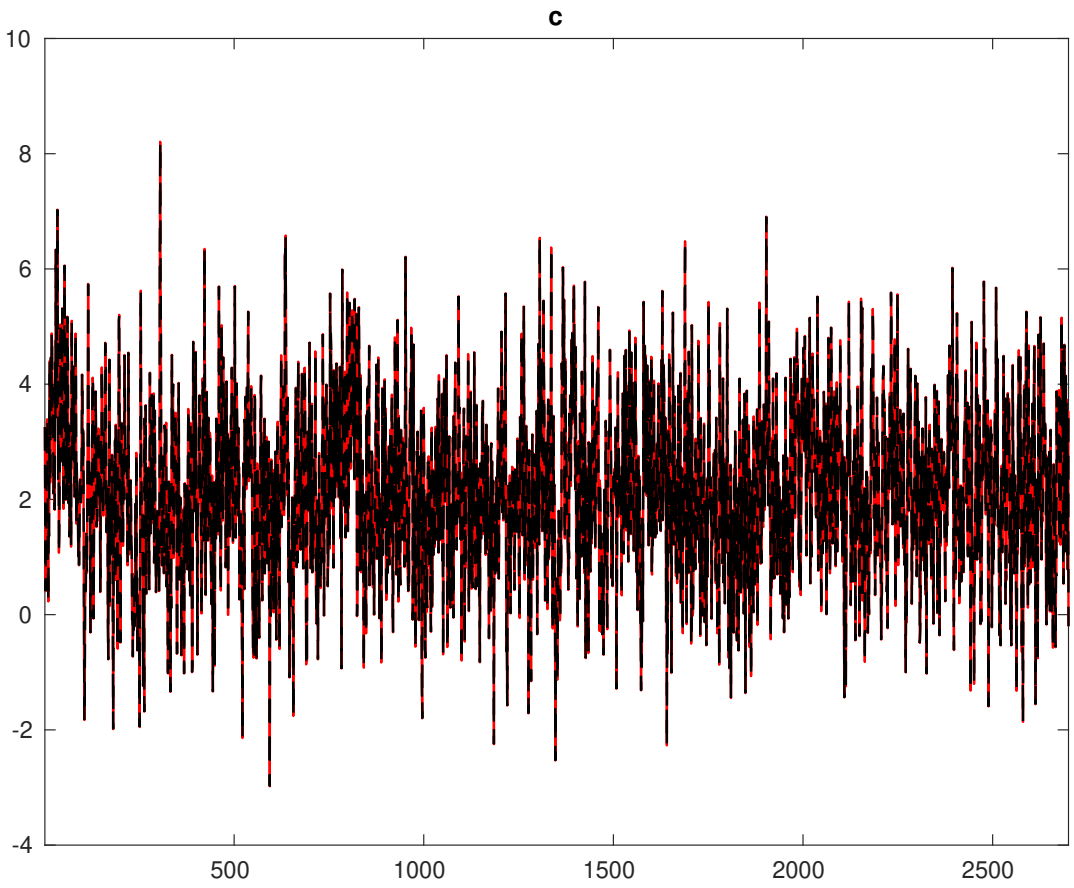

Figure 2: Historical and smoothed variables.

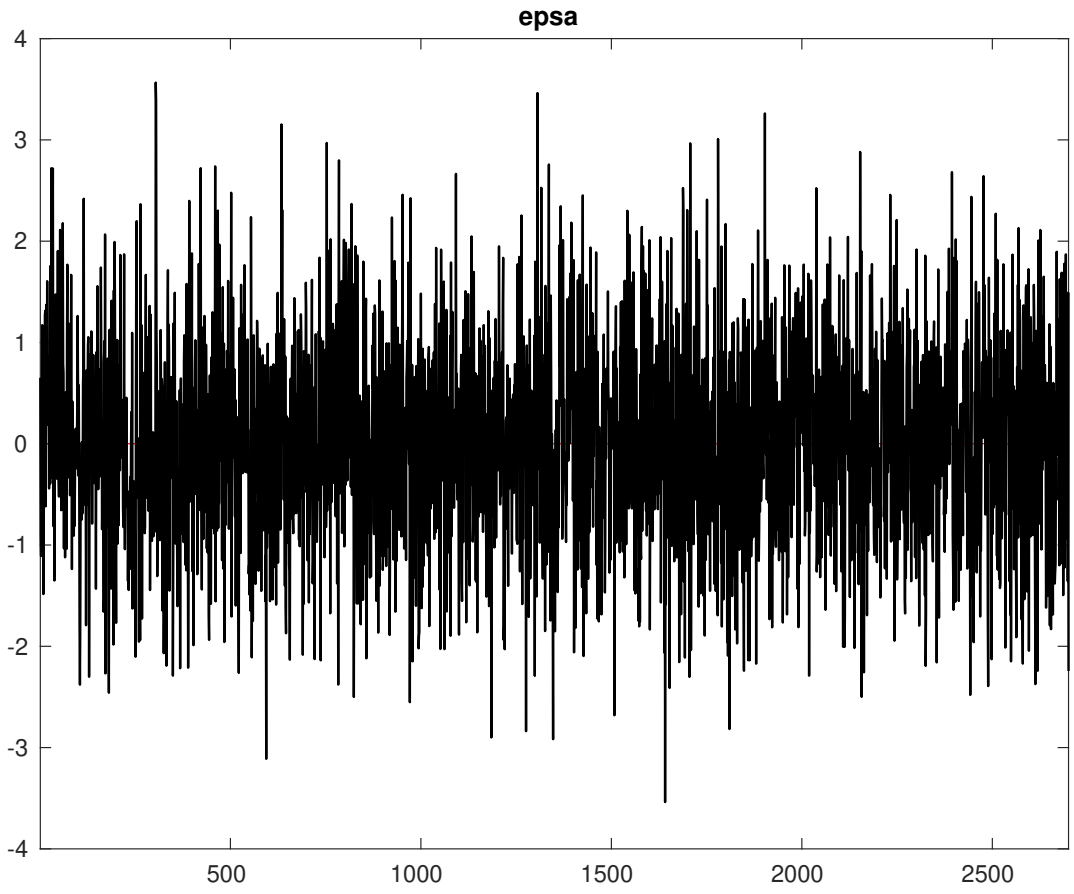

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	261.458	201.091	230.273	196.243
r_A	47.498	47.117	48.388	44.881
δ	324.907	247.737	259.083	233.907
ρ_A	121.377	150.264	113.981	114.565
σ_A	195.839	244.373	189.475	160.485
θ	92.469	103.266	112.446	96.953
κ	205.410	239.217	234.377	227.979

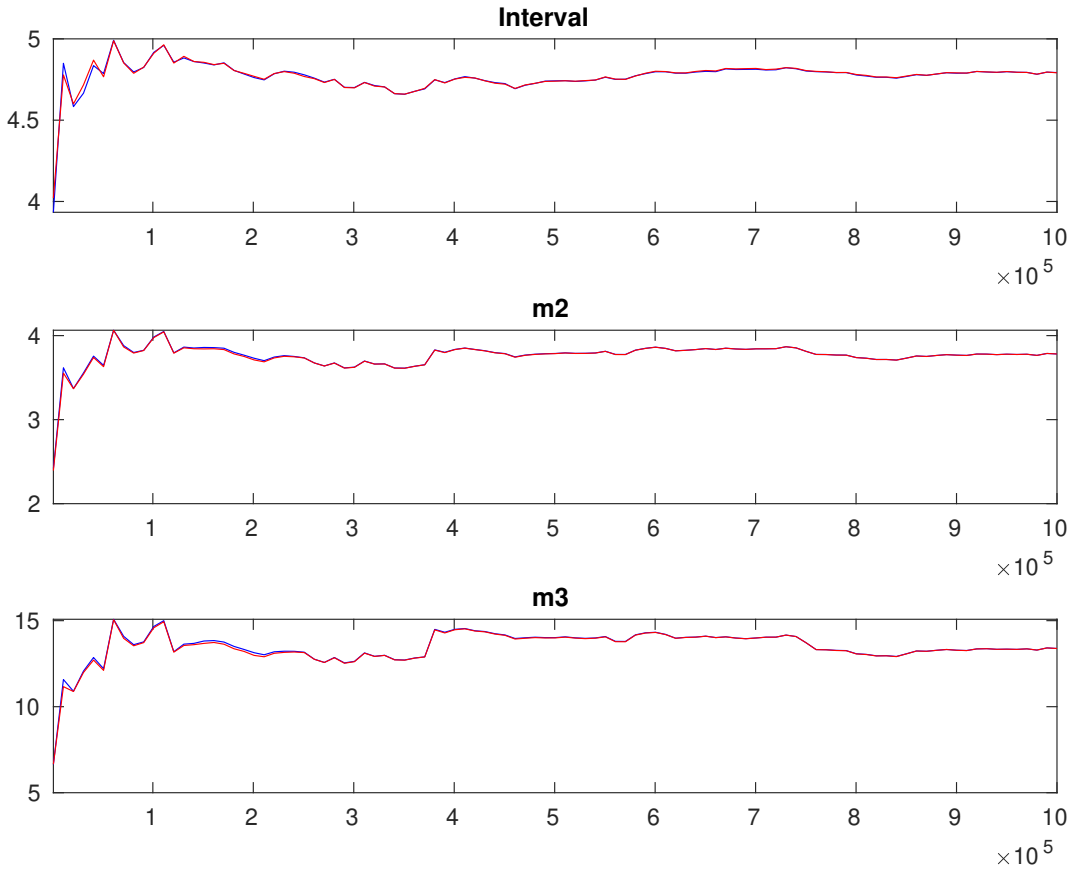

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.306	0.0339	0.2505	0.3619
r_A	gamm	2.000	0.2500	2.002	0.2487	1.5930	2.4083
δ	unif	0.500	0.2887	0.025	0.0103	0.0085	0.0406
ρ_A	beta	0.500	0.1000	0.504	0.0252	0.4621	0.5446
σ_A	invg	0.600	2.0000	0.563	0.0431	0.4916	0.6316
θ	gamm	1.500	0.7500	1.584	0.7235	0.5005	2.6672
κ	gamm	2.000	1.5000	2.398	1.4333	0.1541	4.4094

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2945	0.0348
r_A	gamm	2.000	0.2500	1.9702	0.2482
δ	unif	0.500	0.2887	0.0199	0.0094
ρ_A	beta	0.500	0.1000	0.5114	0.0238
σ_A	invg	0.600	2.0000	0.5621	0.0429
θ	gamm	1.500	0.7500	1.0989	0.5593
κ	gamm	2.000	1.5000	1.8942	1.2298

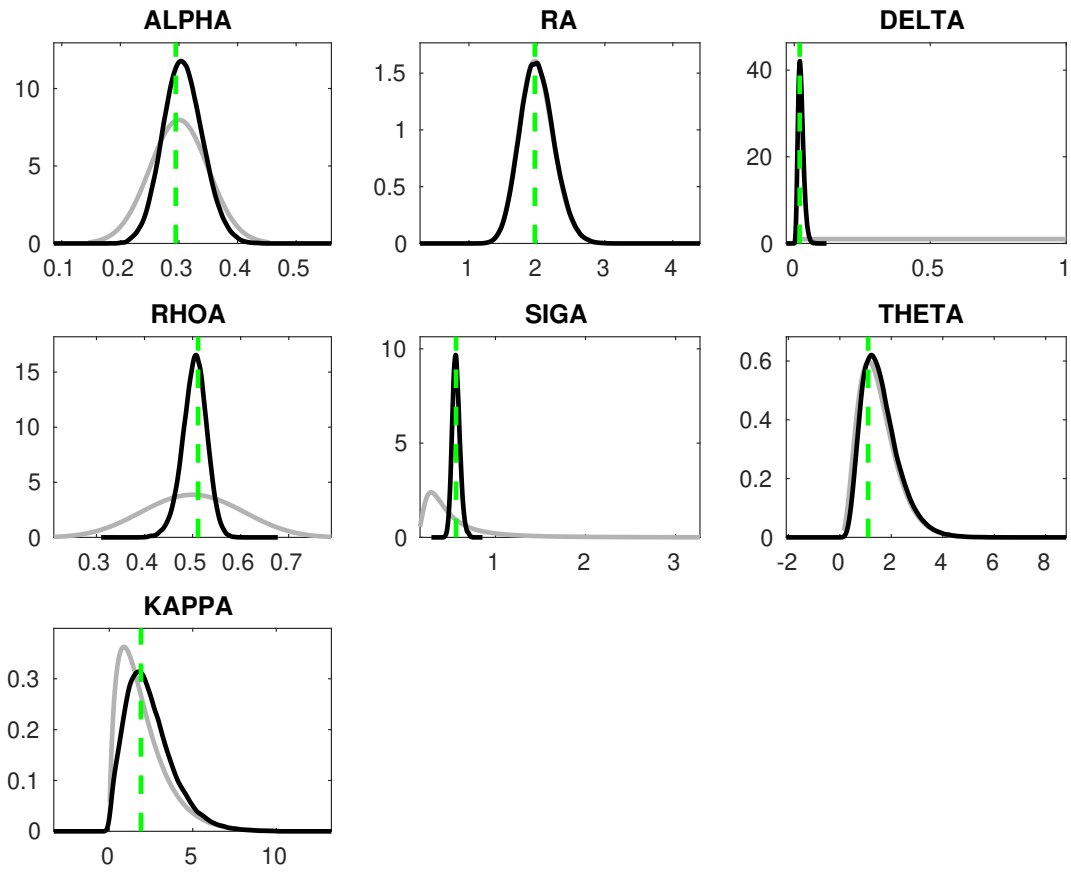

Figure 5: Priors and posteriors.

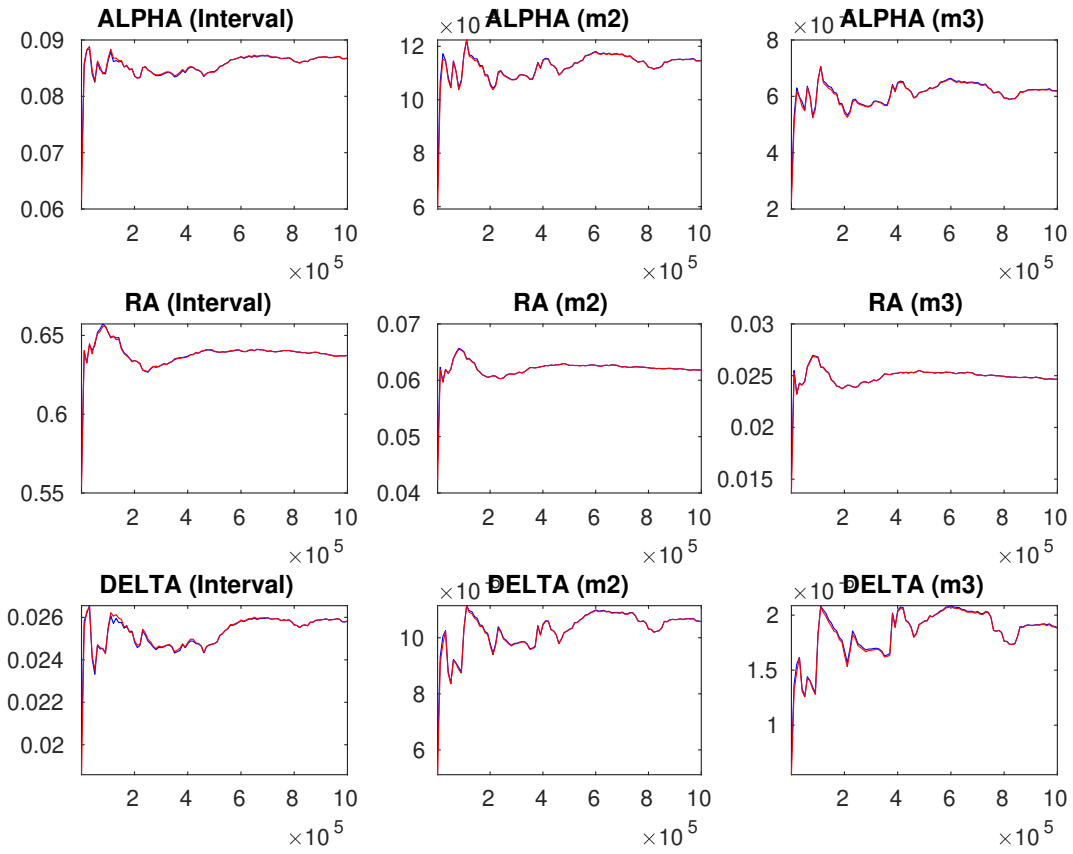

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

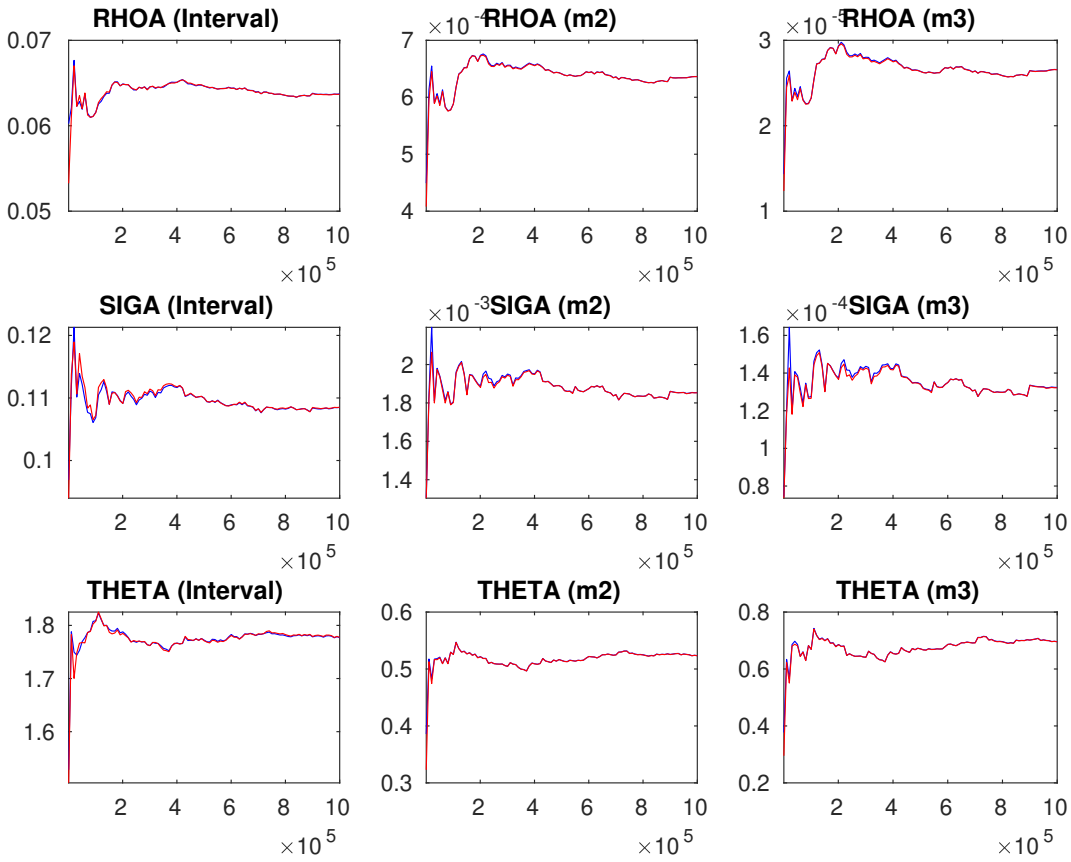

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

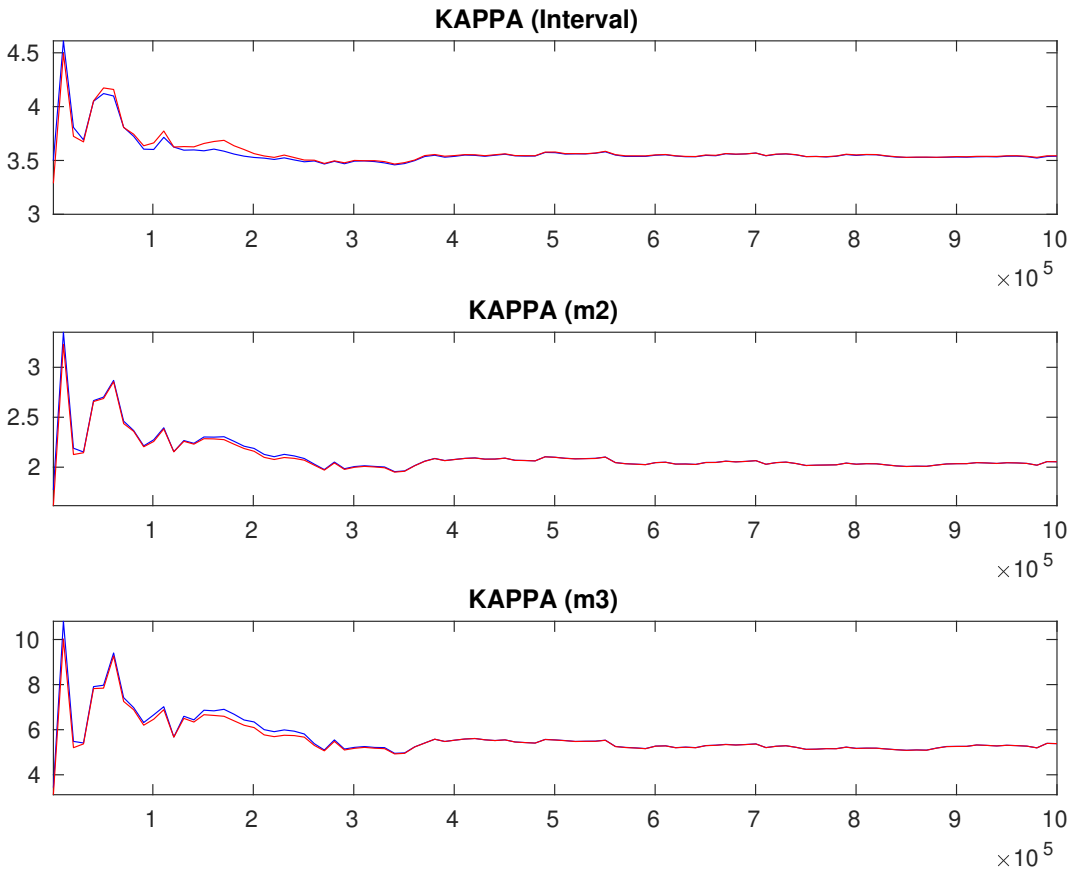

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.