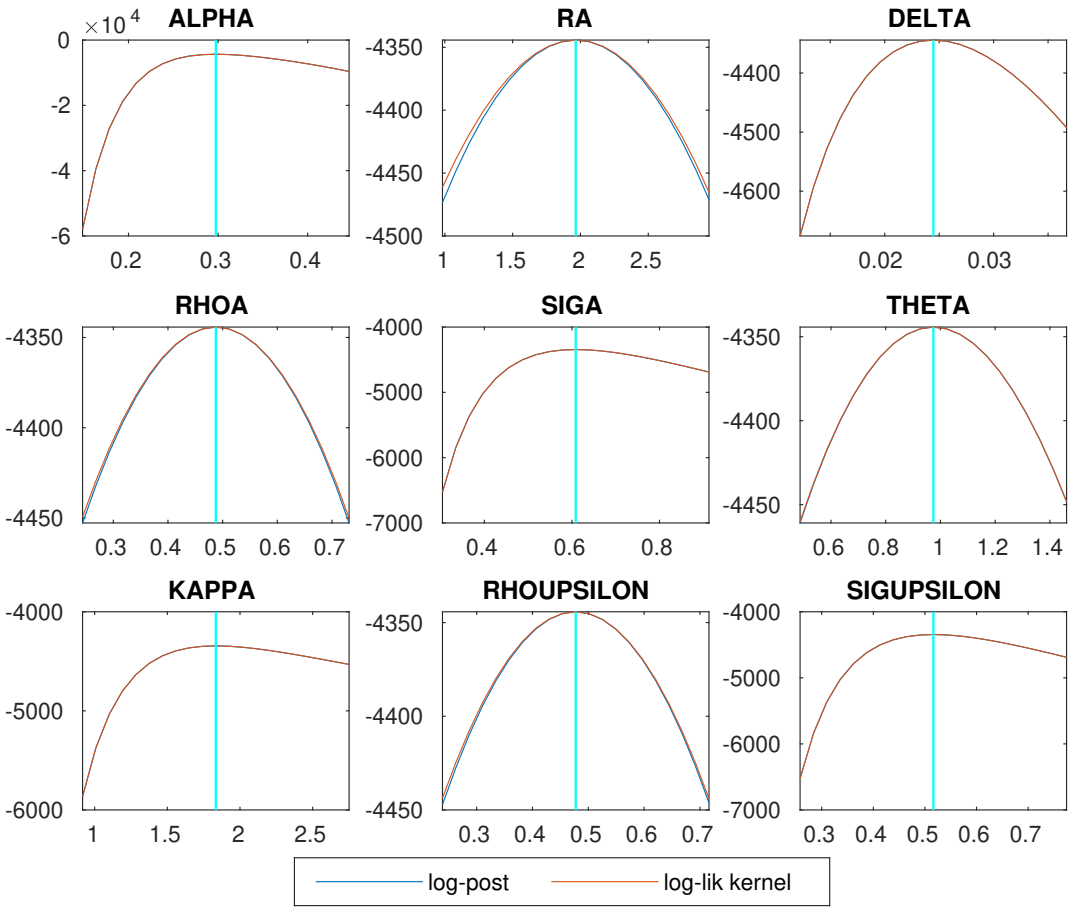

Figure 1: Check plots.

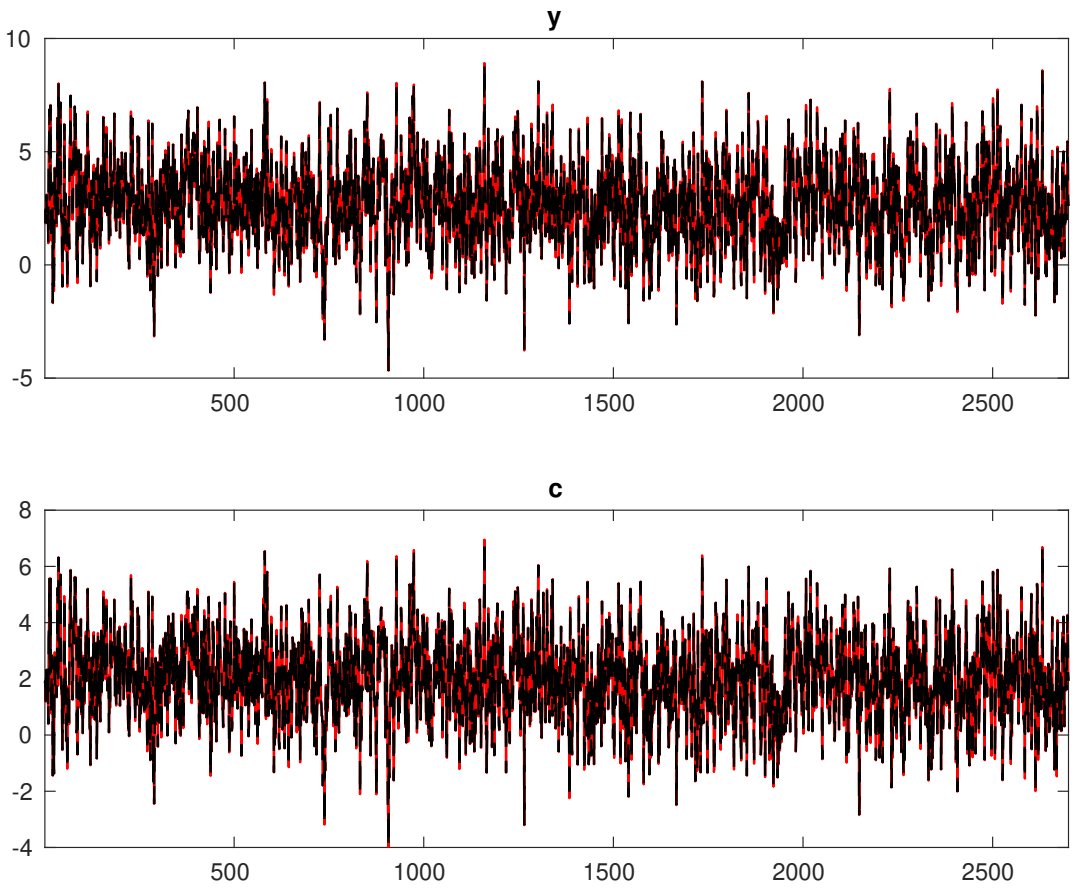

Figure 2: Historical and smoothed variables.

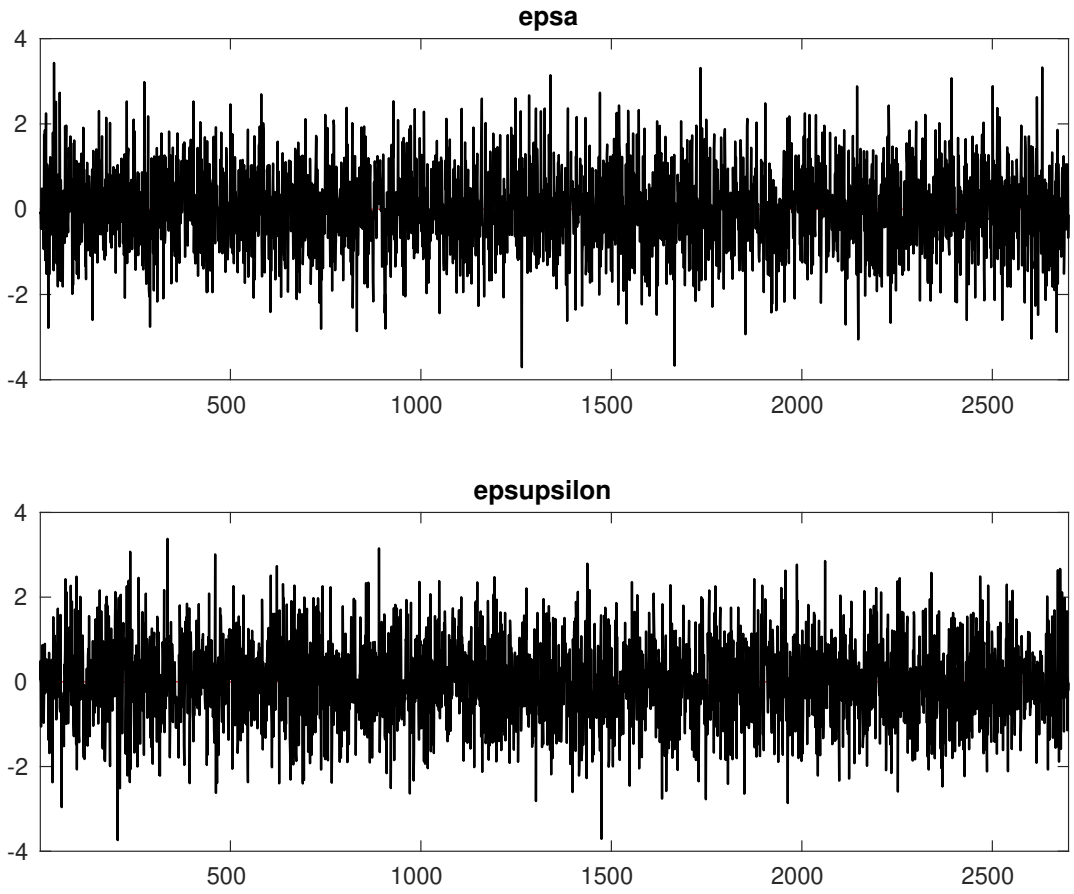

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	39.352	37.200	39.629	36.125
r_A	40.795	39.853	41.413	40.436
δ	46.106	45.237	43.822	45.314
ρ_A	37.065	39.220	37.912	37.873
σ_A	45.051	42.045	41.816	43.762
θ	388.743	299.353	351.098	305.966
κ	376.239	296.047	337.974	293.465
ρ_υ	39.180	39.674	40.965	40.727
σ_υ	268.582	205.776	236.142	213.279

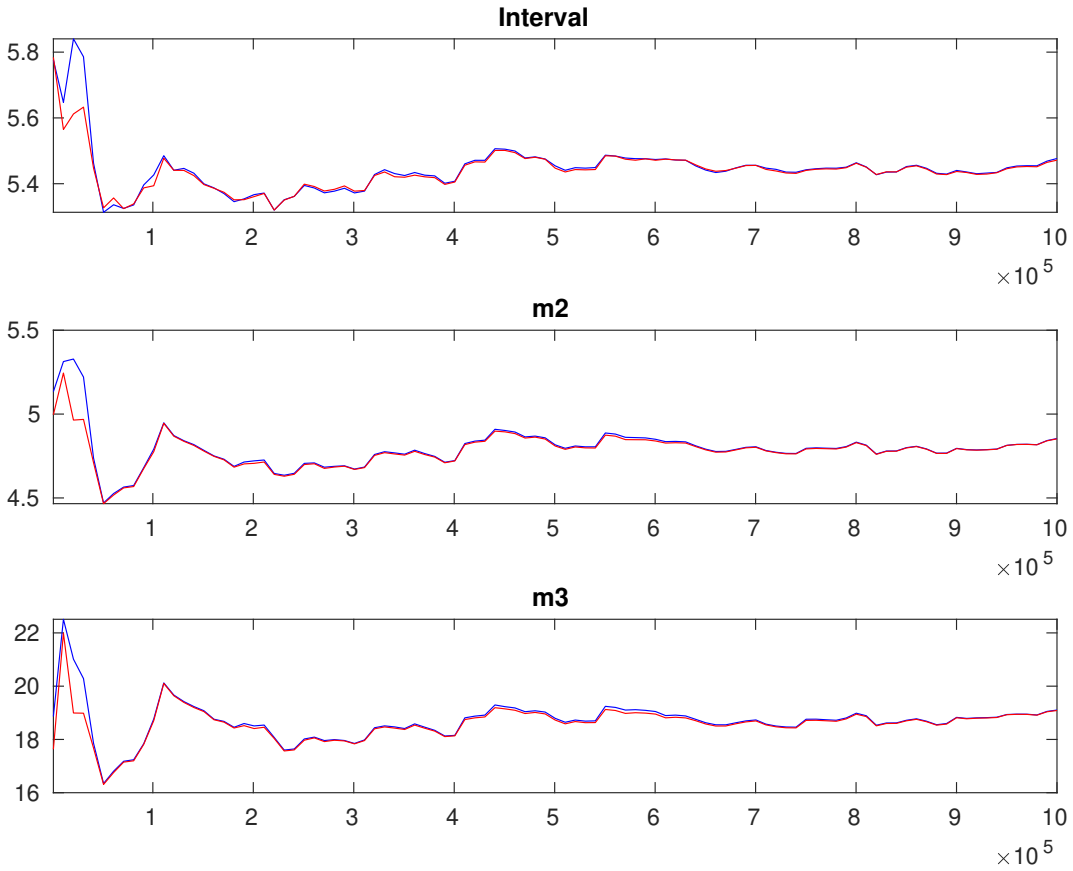

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.298	0.0045	0.2901	0.3051
r_A	gamm	2.000	0.2500	1.999	0.2488	1.5916	2.4067
δ	unif	0.500	0.2887	0.025	0.0019	0.0218	0.0281
ρ_A	beta	0.500	0.1000	0.488	0.0167	0.4609	0.5158
σ_A	invg	0.600	2.0000	0.613	0.0215	0.5776	0.6482
θ	gamm	1.500	0.7500	1.444	0.6472	0.4298	2.4346
κ	gamm	2.000	1.5000	2.037	0.2824	1.5855	2.4598
ρ_υ	beta	0.500	0.1000	0.479	0.0168	0.4515	0.5067
σ_υ	invg	0.600	2.0000	0.571	0.0763	0.4448	0.6956

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2975	0.0046
r_A	gamm	2.000	0.2500	1.9651	0.2462
δ	unif	0.500	0.2887	0.0245	0.0019
ρ_A	beta	0.500	0.1000	0.4876	0.0166
σ_A	invg	0.600	2.0000	0.6087	0.0209
θ	gamm	1.500	0.7500	0.9741	0.5335
κ	gamm	2.000	1.5000	1.8338	0.2316
ρ_υ	beta	0.500	0.1000	0.4775	0.0167
σ_υ	invg	0.600	2.0000	0.5163	0.0787

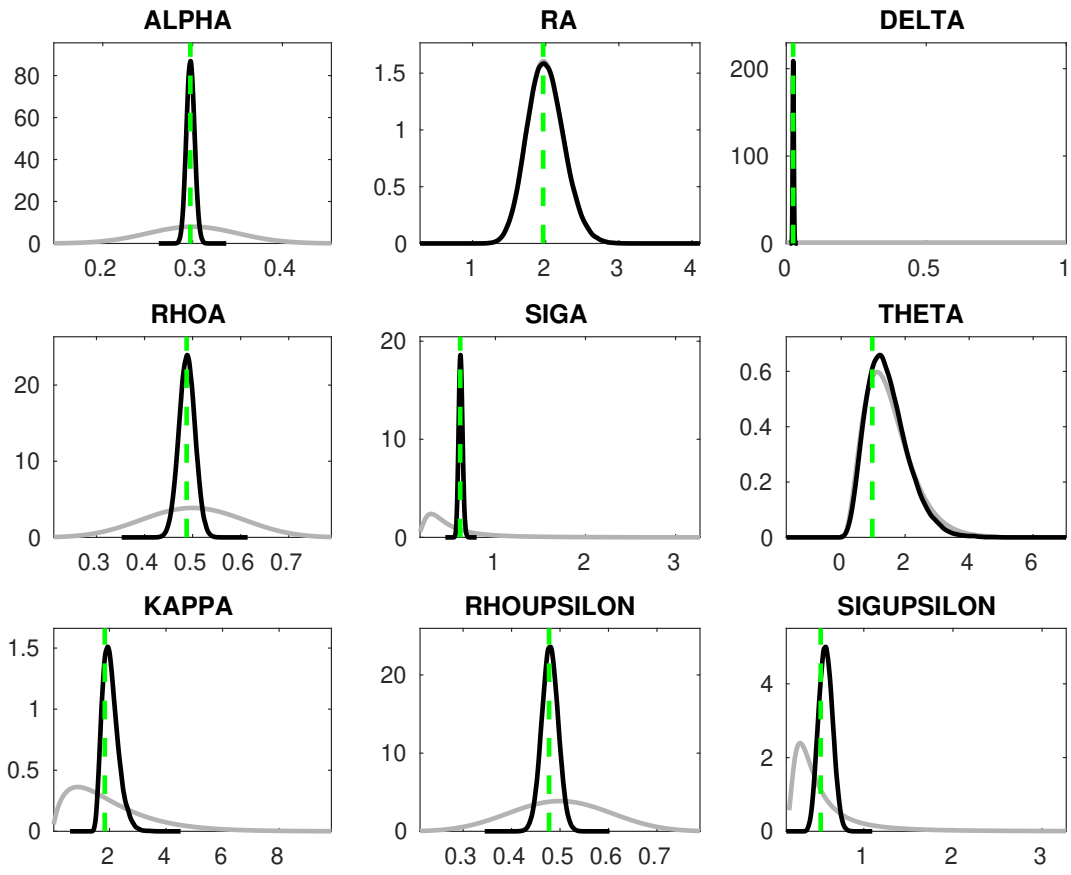

Figure 5: Priors and posteriors.

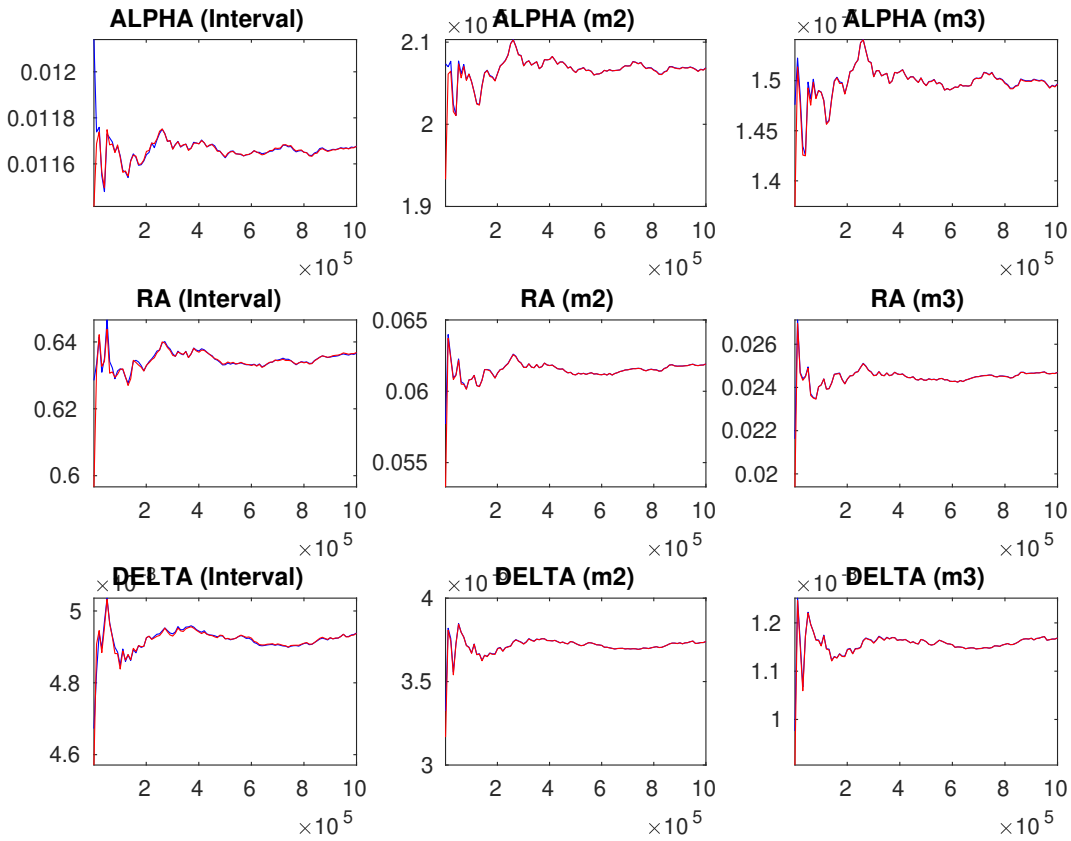

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

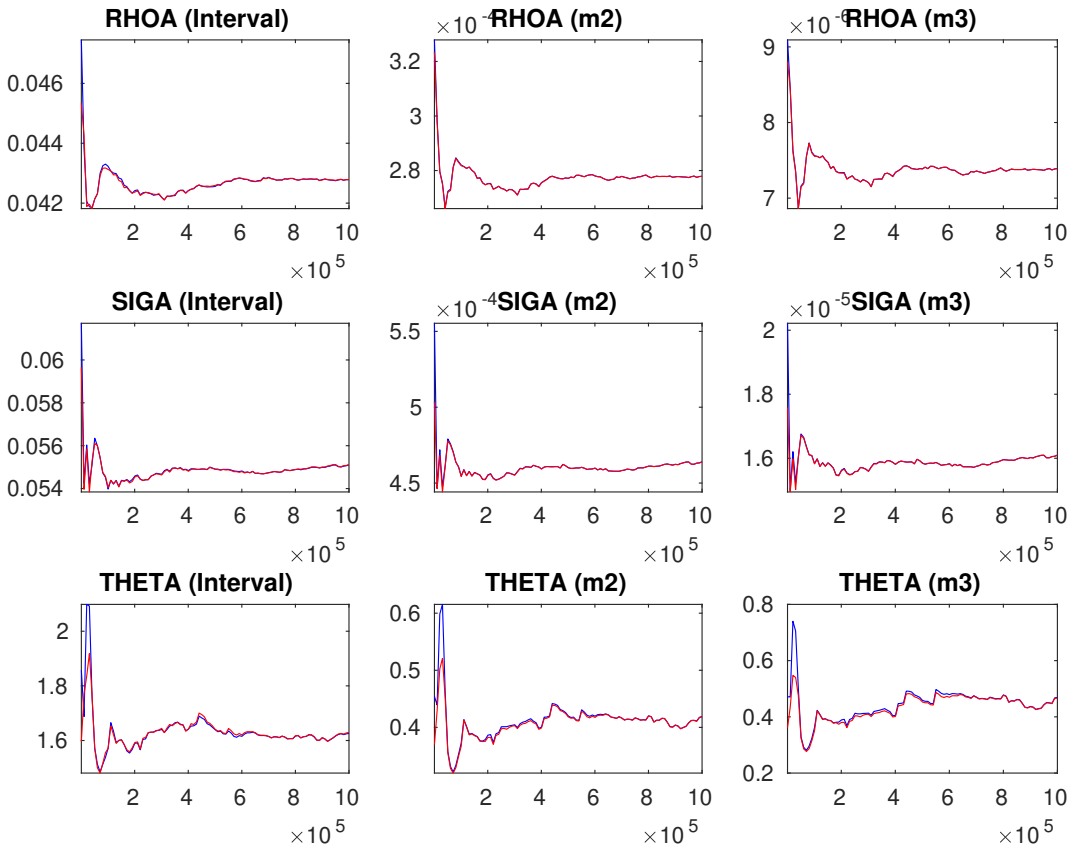

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

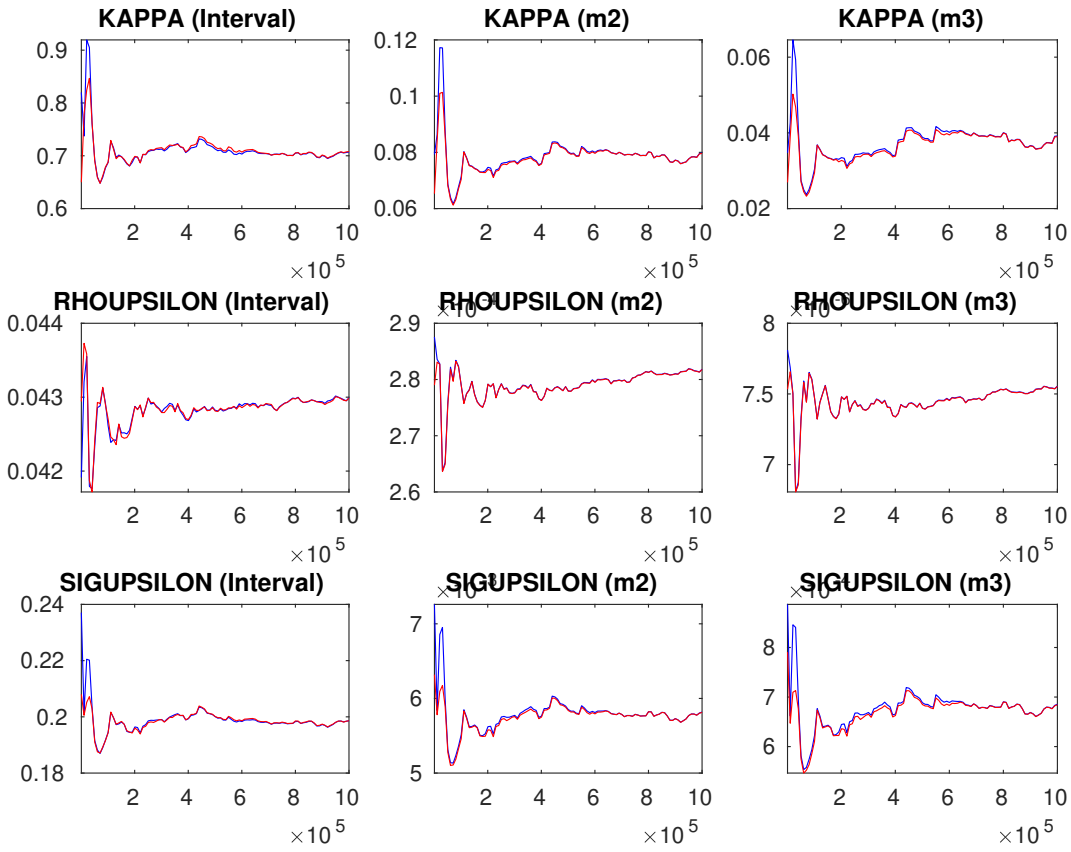

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.