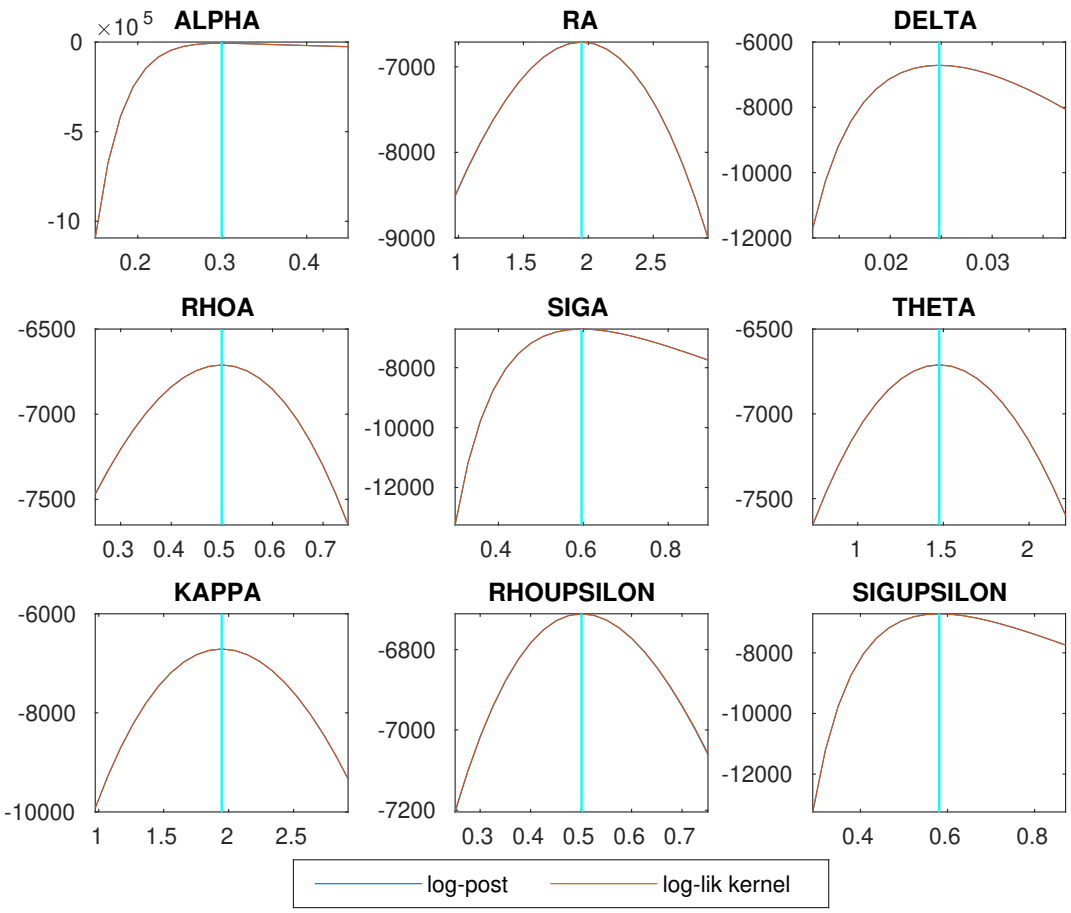

Figure 1: Check plots.

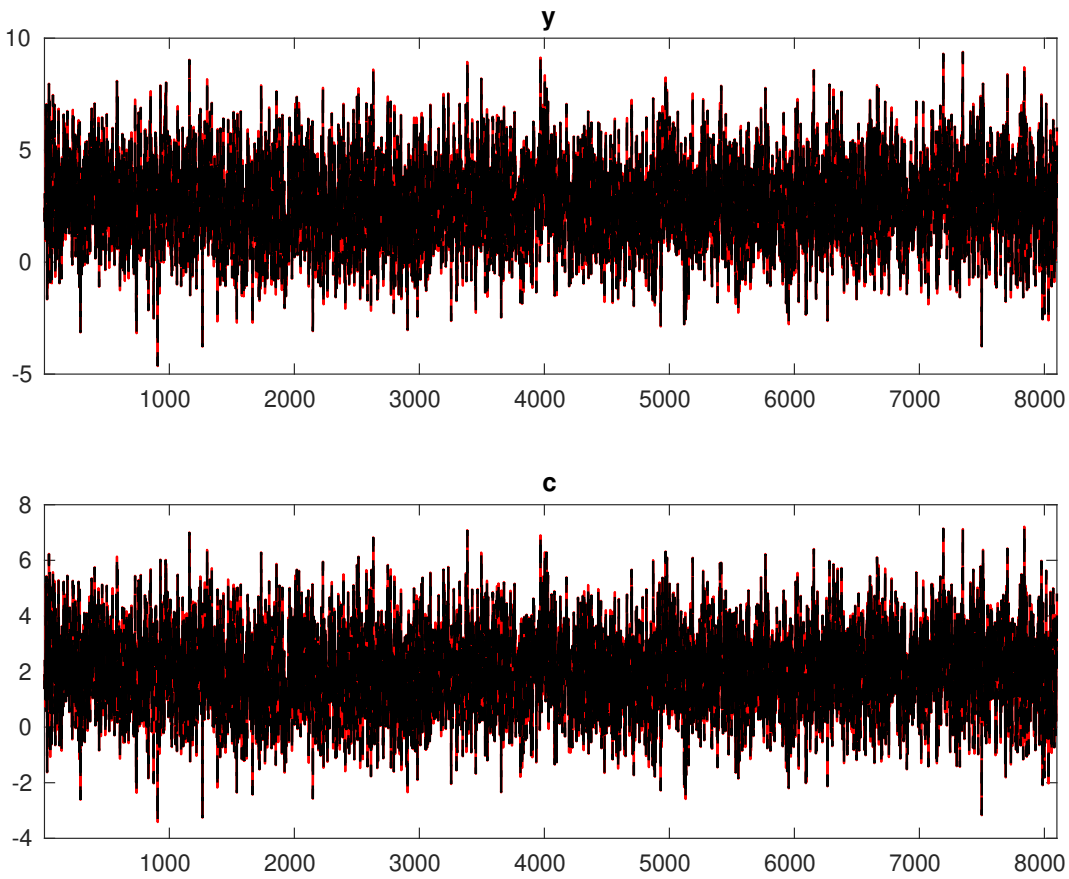

Figure 2: Historical and smoothed variables.

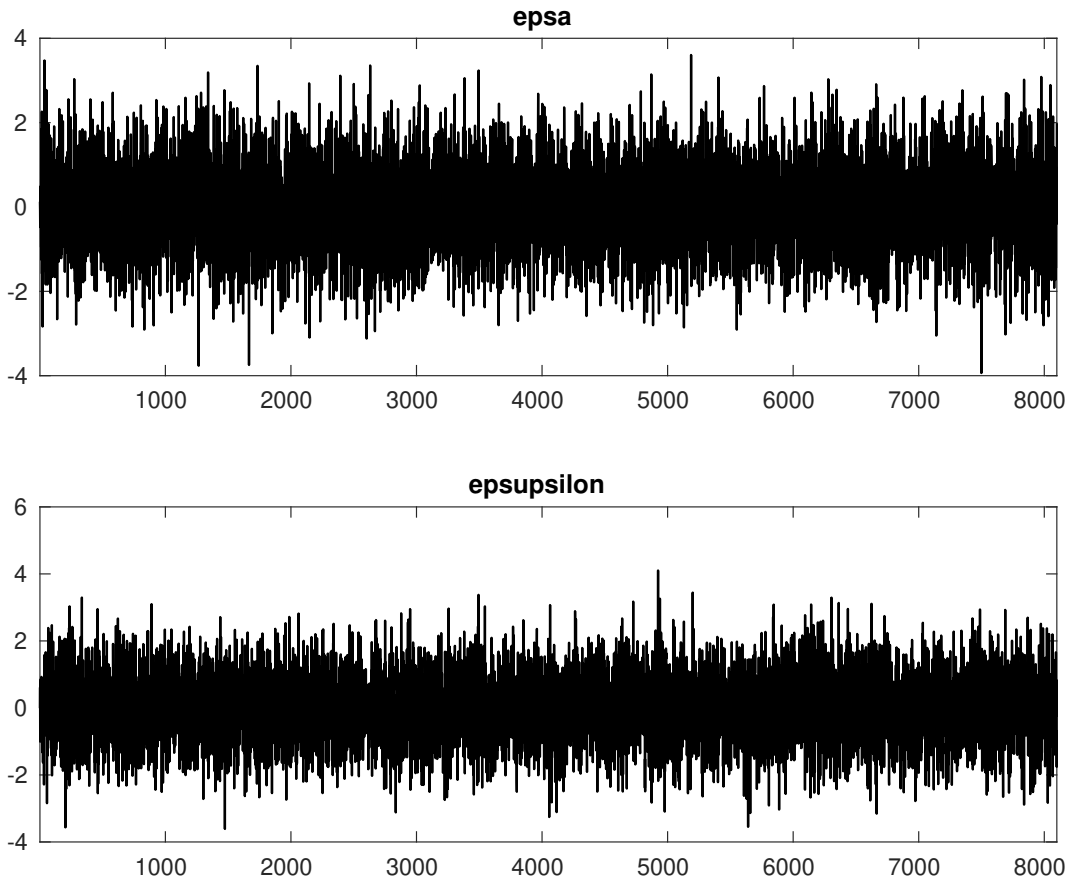

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	37.275	38.420	39.283	37.641
r_A	40.281	40.563	42.454	40.945
δ	39.796	39.250	39.958	38.877
ρ_A	30.091	32.100	30.605	31.677
σ_A	32.332	32.742	32.485	30.153
θ	33.622	33.163	33.151	32.139
κ	33.483	33.948	33.296	33.772
ρ_υ	32.404	31.025	30.586	33.024
σ_υ	34.508	31.387	31.281	33.040

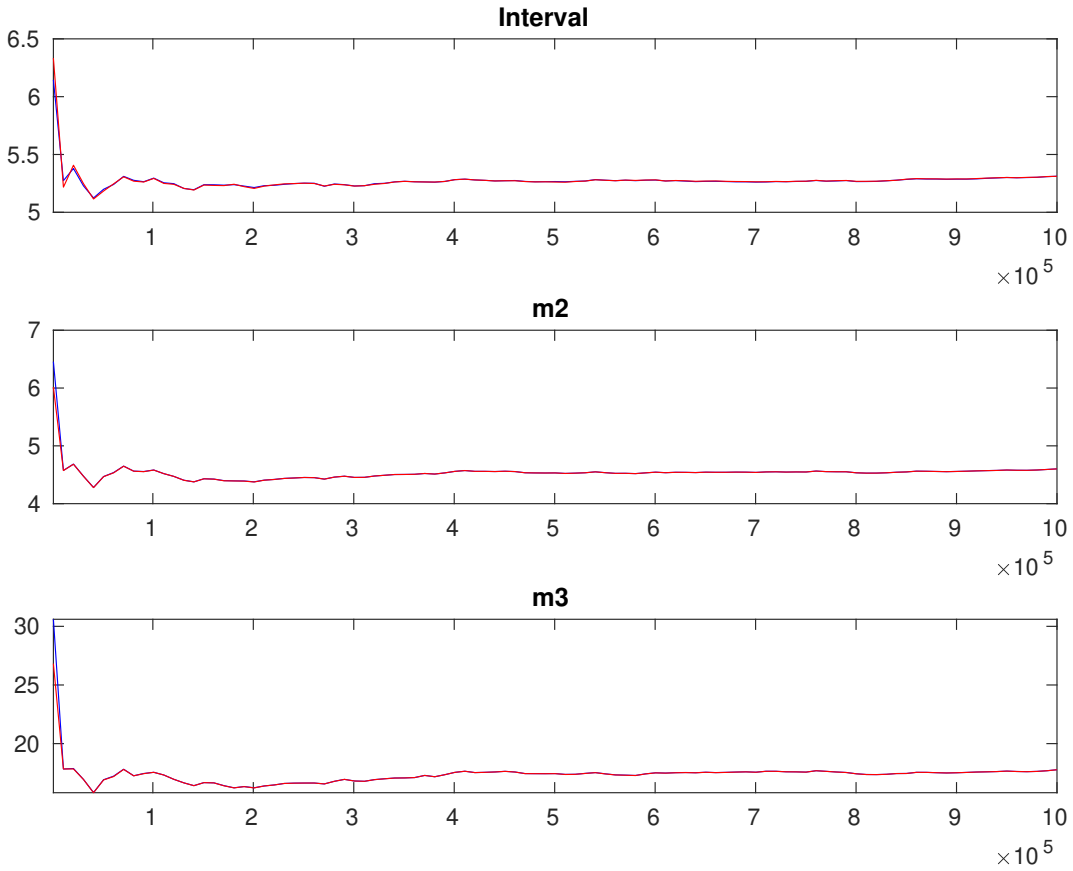

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.300	0.0040	0.2929	0.3061
r_A	gamm	2.000	0.2500	1.978	0.2260	1.6025	2.3437
δ	unif	0.500	0.2887	0.025	0.0012	0.0230	0.0270
ρ_A	beta	0.500	0.1000	0.500	0.0095	0.4845	0.5159
σ_A	invg	0.600	2.0000	0.597	0.0123	0.5771	0.6173
θ	gamm	1.500	0.7500	1.482	0.0547	1.3915	1.5709
κ	gamm	2.000	1.5000	1.951	0.0381	1.8892	2.0143
ρ_υ	beta	0.500	0.1000	0.502	0.0099	0.4853	0.5178
σ_υ	invg	0.600	2.0000	0.584	0.0188	0.5529	0.6146

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2993	0.0040
r_A	gamm	2.000	0.2500	1.9477	0.2247
δ	unif	0.500	0.2887	0.0248	0.0012
ρ_A	beta	0.500	0.1000	0.4996	0.0095
σ_A	invg	0.600	2.0000	0.5958	0.0122
θ	gamm	1.500	0.7500	1.4753	0.0540
κ	gamm	2.000	1.5000	1.9463	0.0377
ρ_υ	beta	0.500	0.1000	0.5009	0.0099
σ_υ	invg	0.600	2.0000	0.5808	0.0186

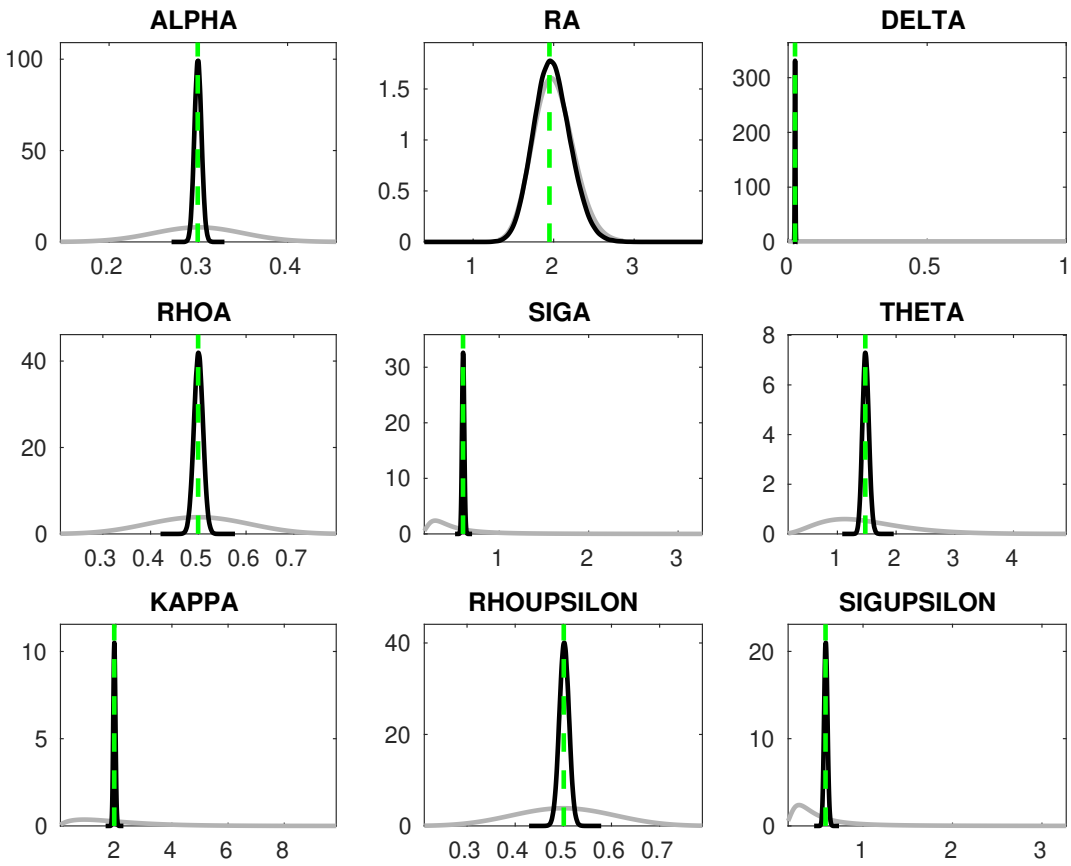

Figure 5: Priors and posteriors.

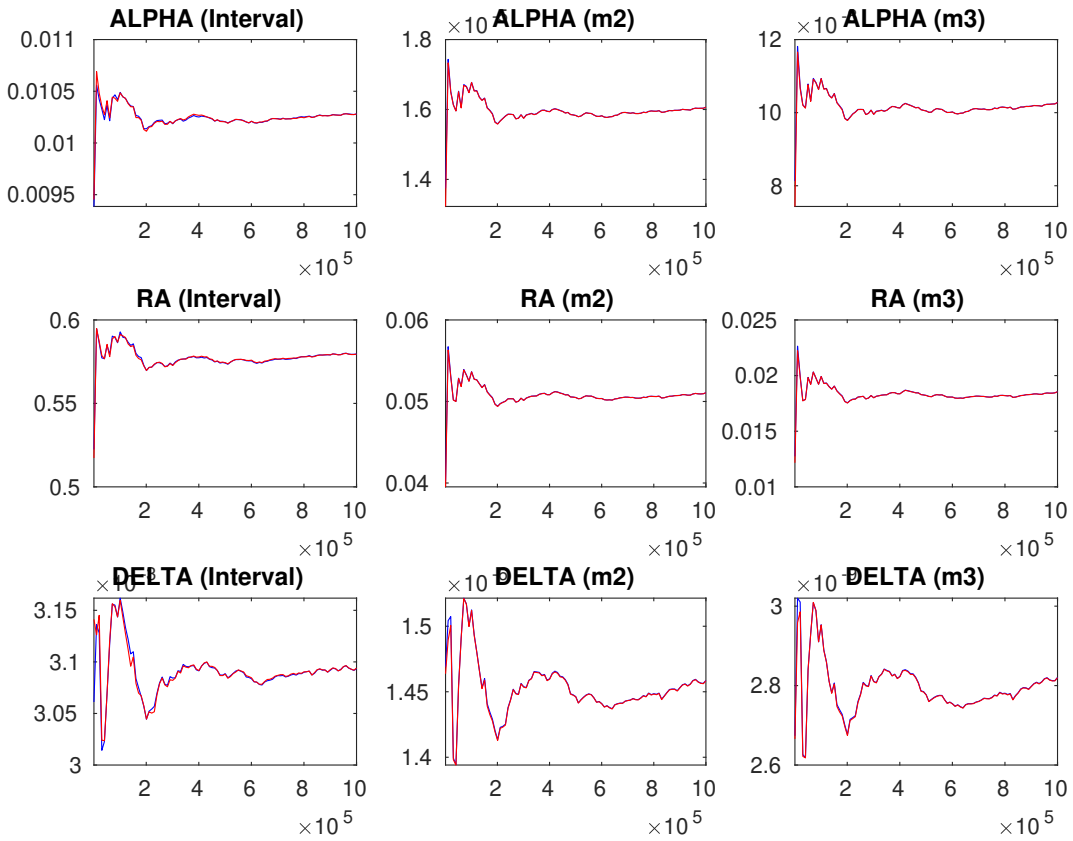

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

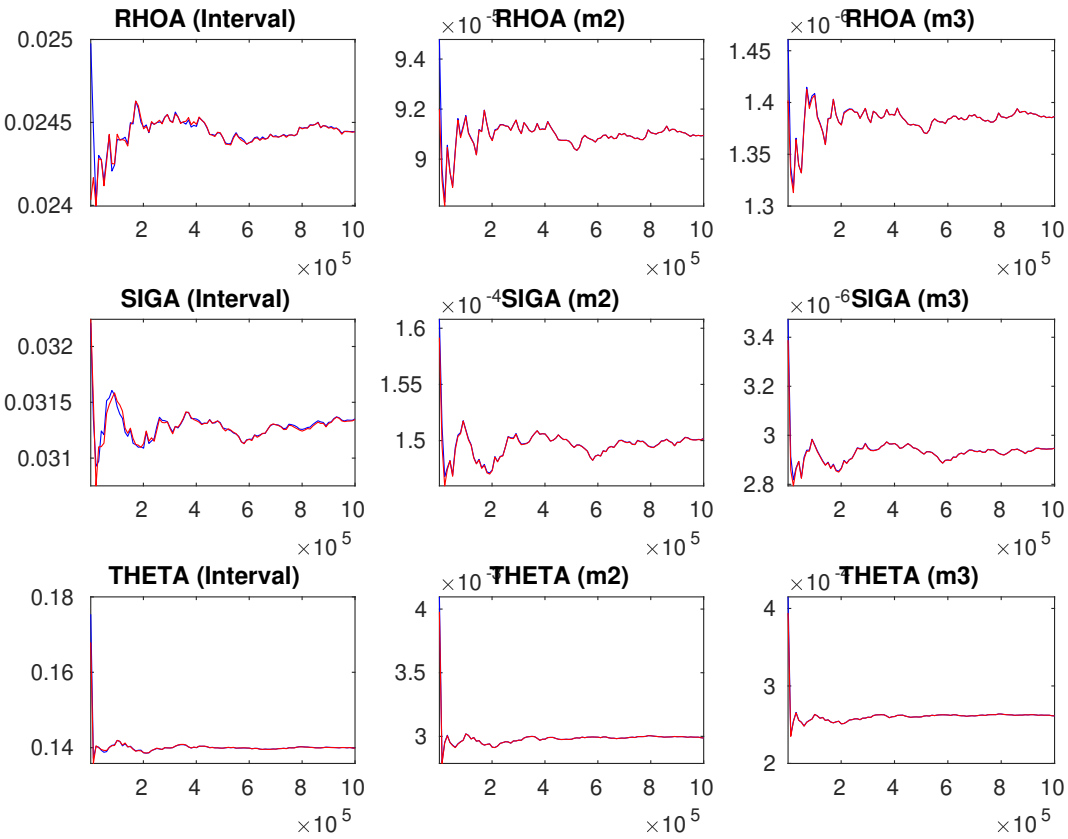

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

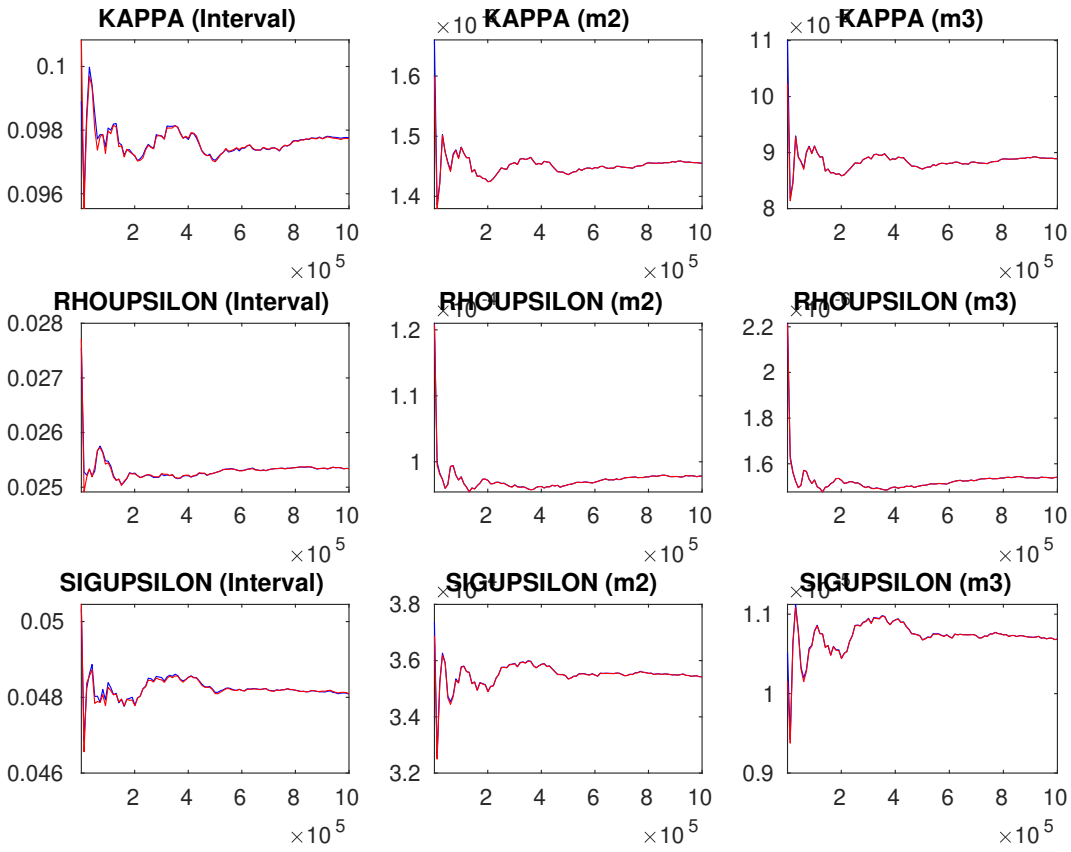

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.