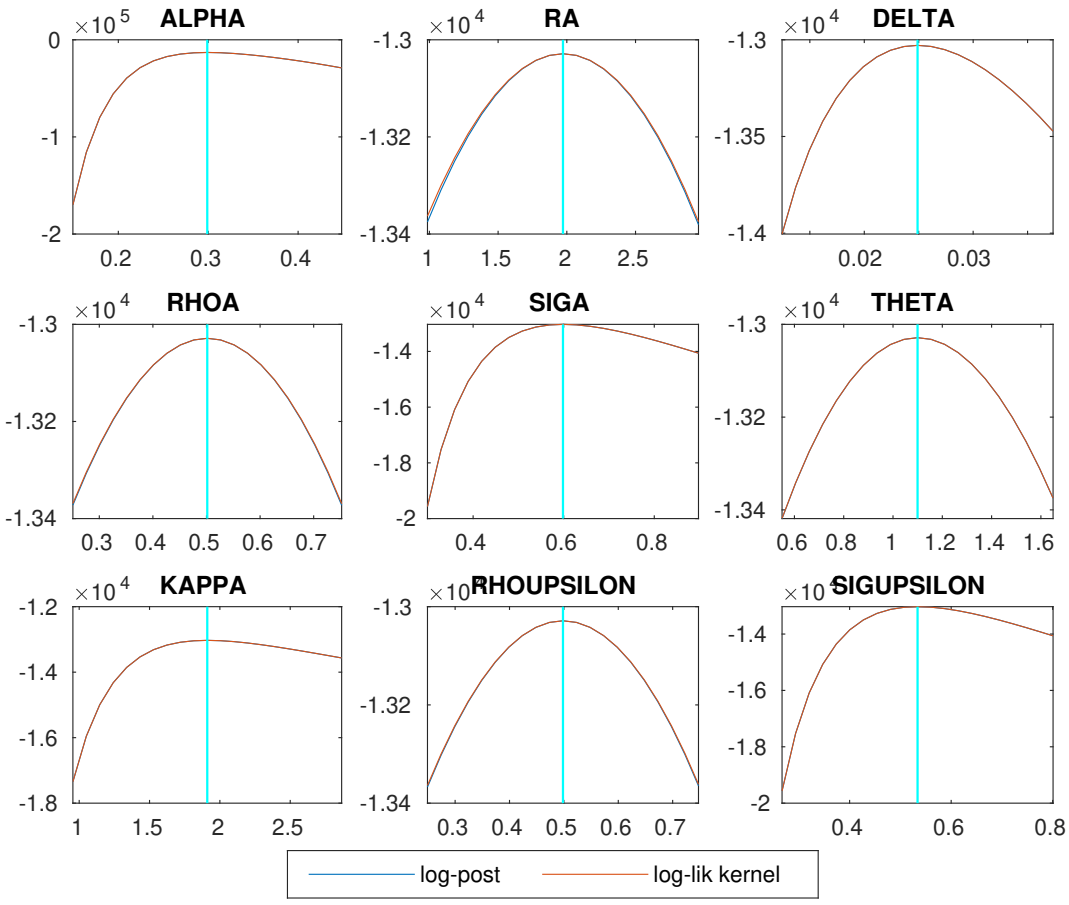

Figure 1: Check plots.

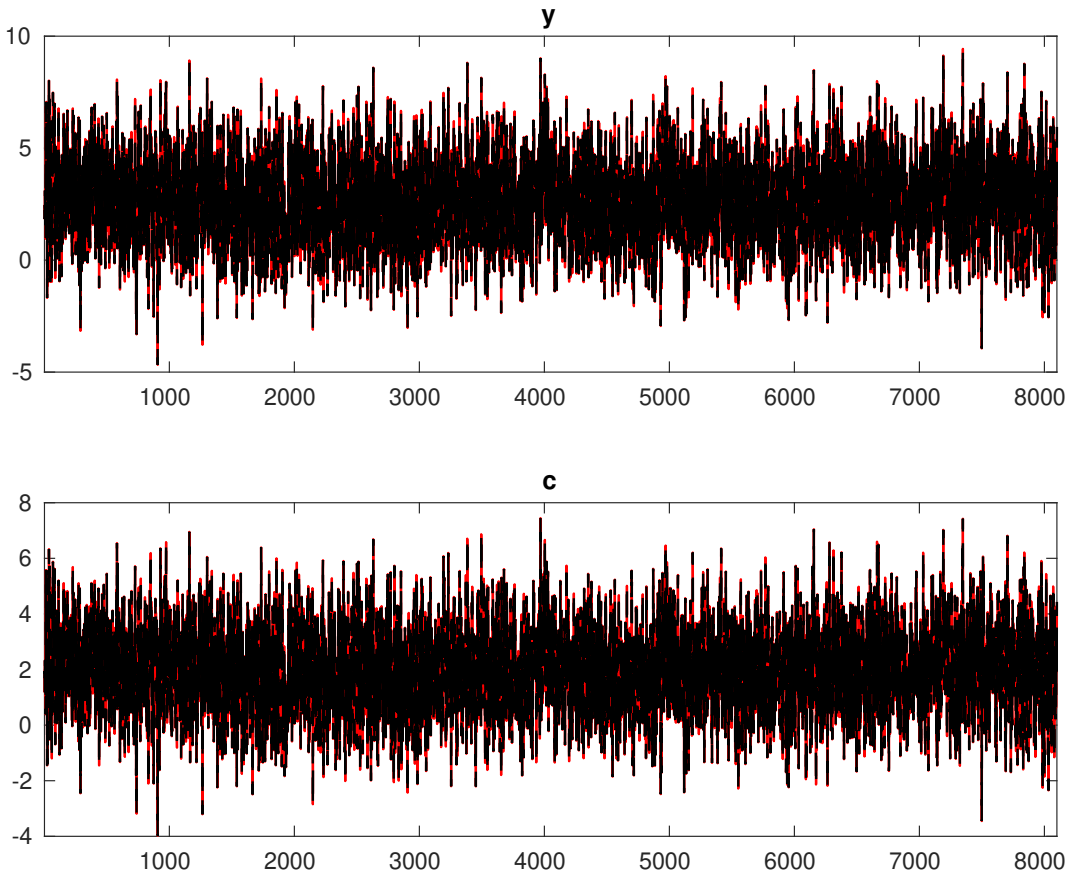

Figure 2: Historical and smoothed variables.

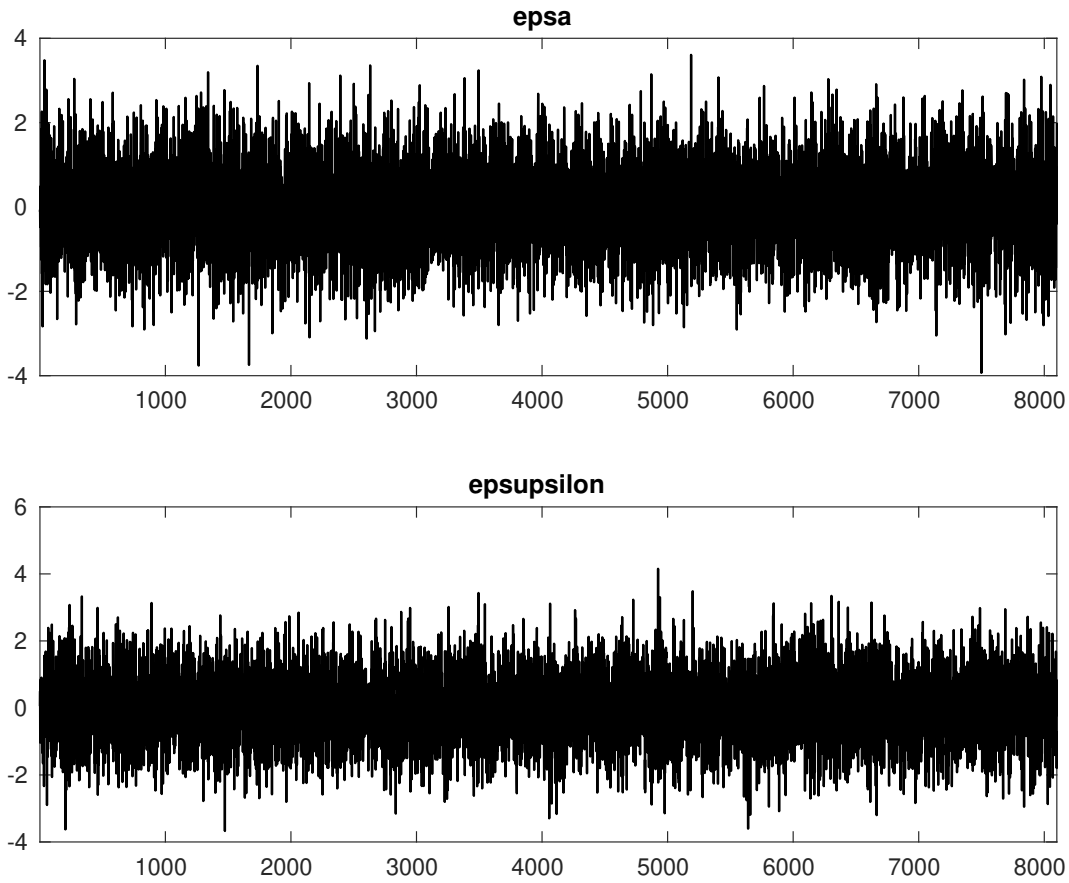

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	46.525	48.408	45.299	50.776
r_A	49.164	51.054	47.225	54.534
δ	51.258	55.150	55.720	56.439
ρ_A	44.658	45.157	45.315	49.867
σ_A	48.355	49.698	54.605	50.411
θ	372.972	330.998	366.790	497.092
κ	366.736	324.612	360.749	491.165
ρ_υ	50.092	45.982	52.785	59.073
σ_υ	299.452	256.745	288.314	390.191

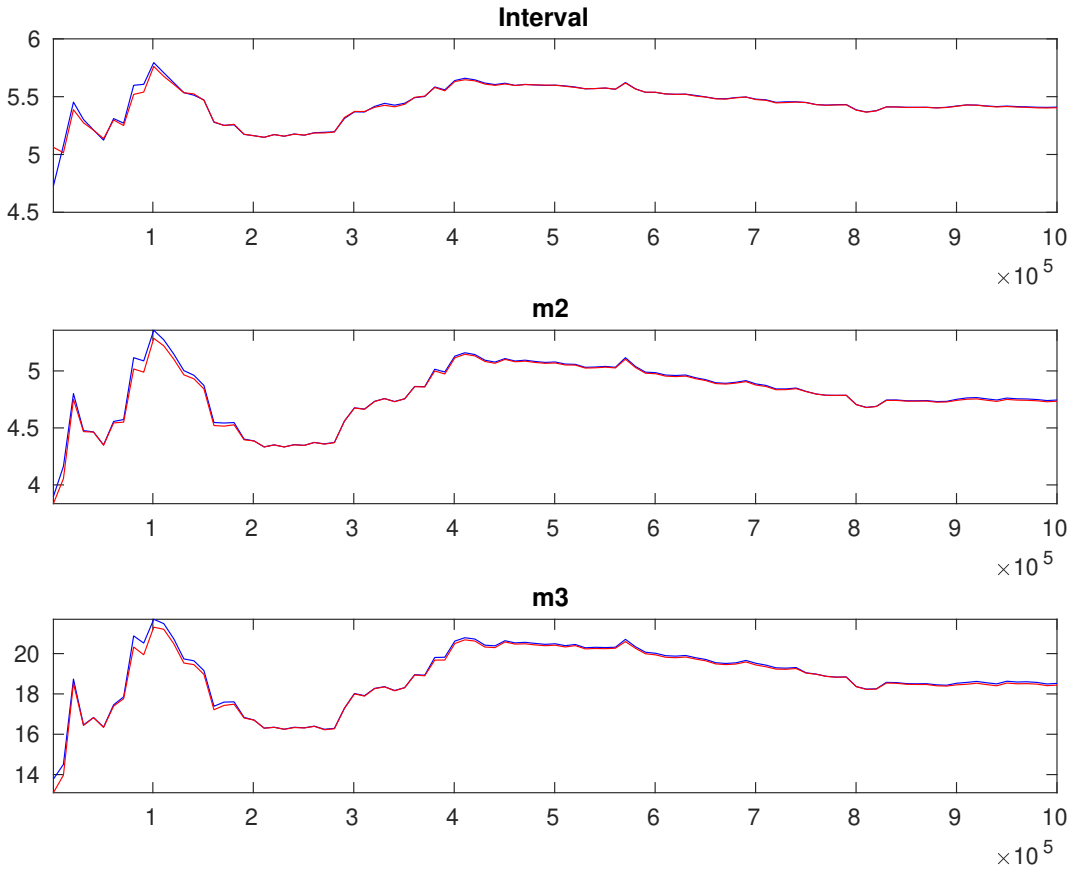

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.299	0.0041	0.2924	0.3060
r_A	gamm	2.000	0.2500	1.996	0.2447	1.5943	2.3944
δ	unif	0.500	0.2887	0.025	0.0014	0.0228	0.0274
ρ_A	beta	0.500	0.1000	0.502	0.0096	0.4856	0.5172
σ_A	invg	0.600	2.0000	0.600	0.0122	0.5796	0.6195
θ	gamm	1.500	0.7500	1.470	0.5949	0.5192	2.4017
κ	gamm	2.000	1.5000	2.072	0.2602	1.6621	2.4854
ρ_υ	beta	0.500	0.1000	0.499	0.0097	0.4836	0.5155
σ_υ	invg	0.600	2.0000	0.573	0.0678	0.4612	0.6849

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2990	0.0042
r_A	gamm	2.000	0.2500	1.9721	0.2437
δ	unif	0.500	0.2887	0.0249	0.0014
ρ_A	beta	0.500	0.1000	0.5015	0.0096
σ_A	invg	0.600	2.0000	0.5984	0.0120
θ	gamm	1.500	0.7500	1.0996	0.5227
κ	gamm	2.000	1.5000	1.9104	0.2285
ρ_υ	beta	0.500	0.1000	0.4983	0.0097
σ_υ	invg	0.600	2.0000	0.5338	0.0713

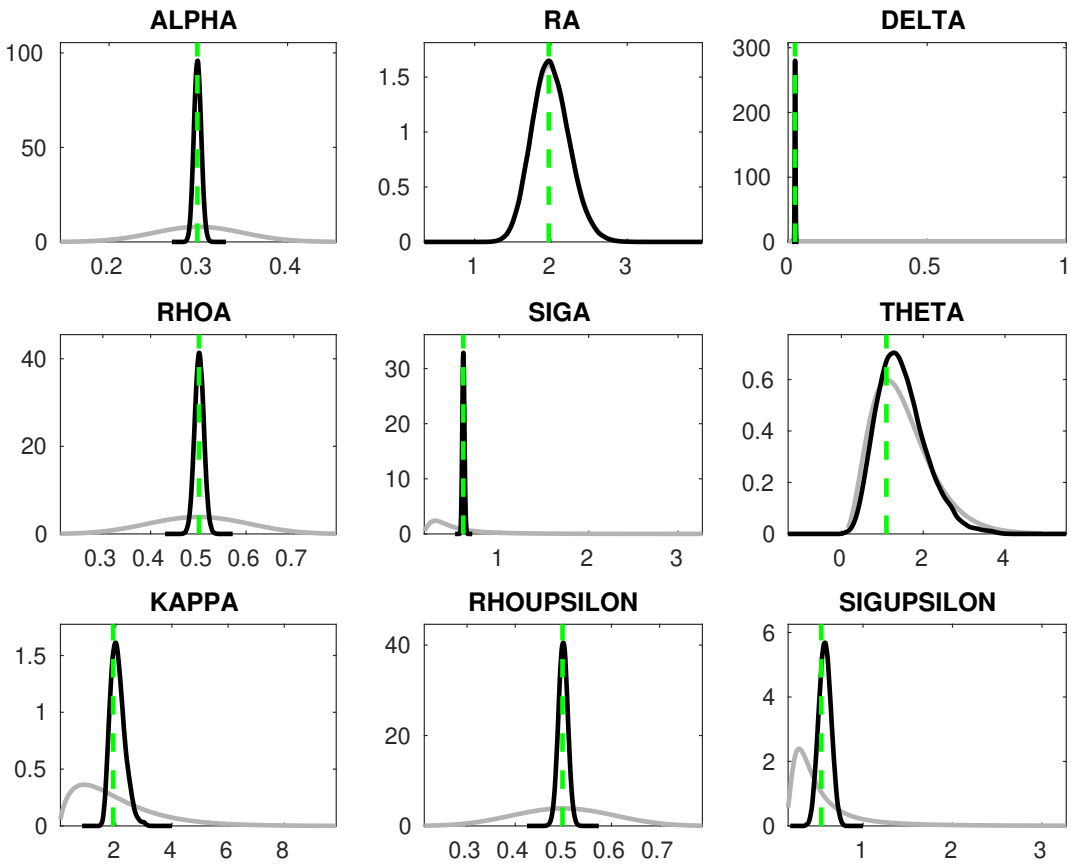

Figure 5: Priors and posteriors.

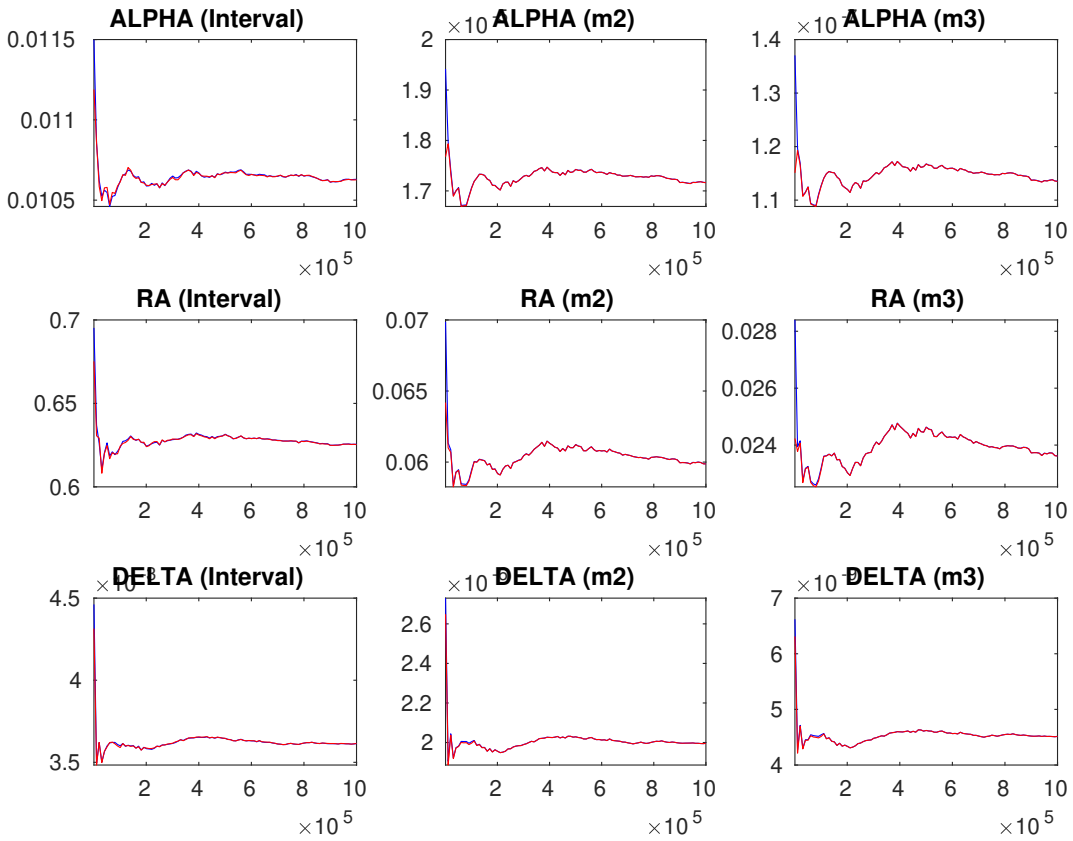

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

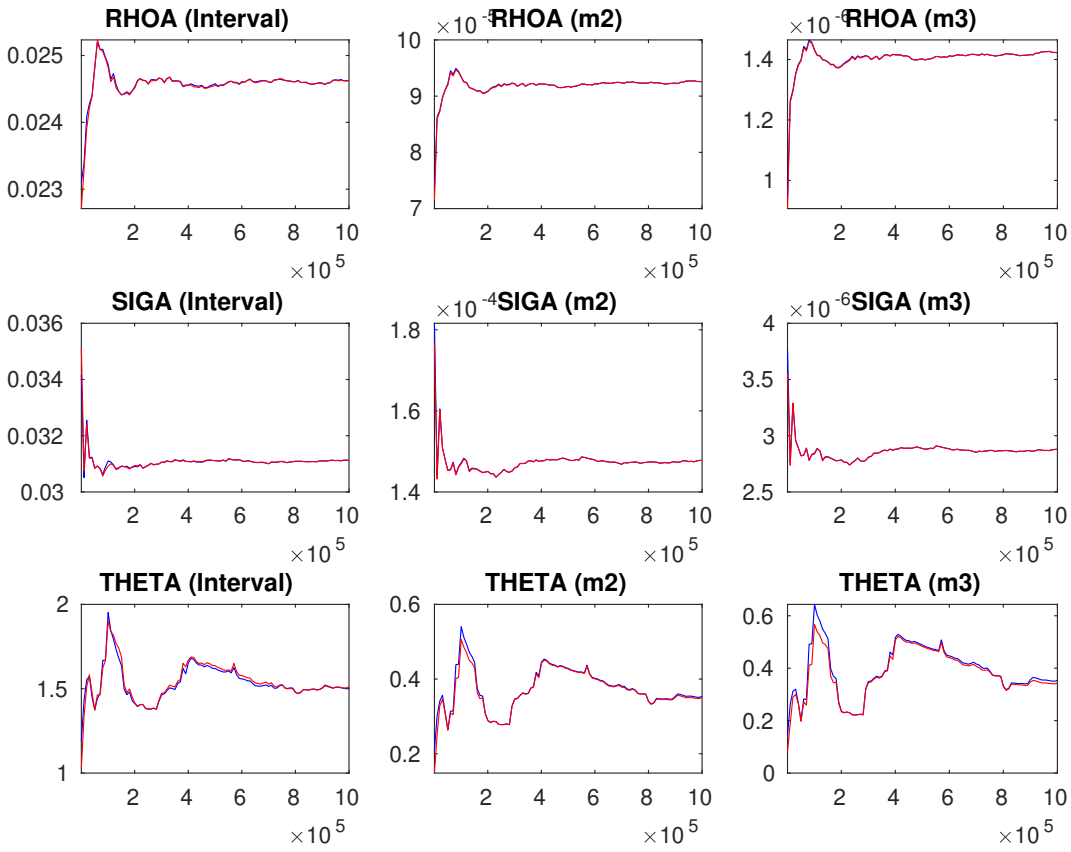

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

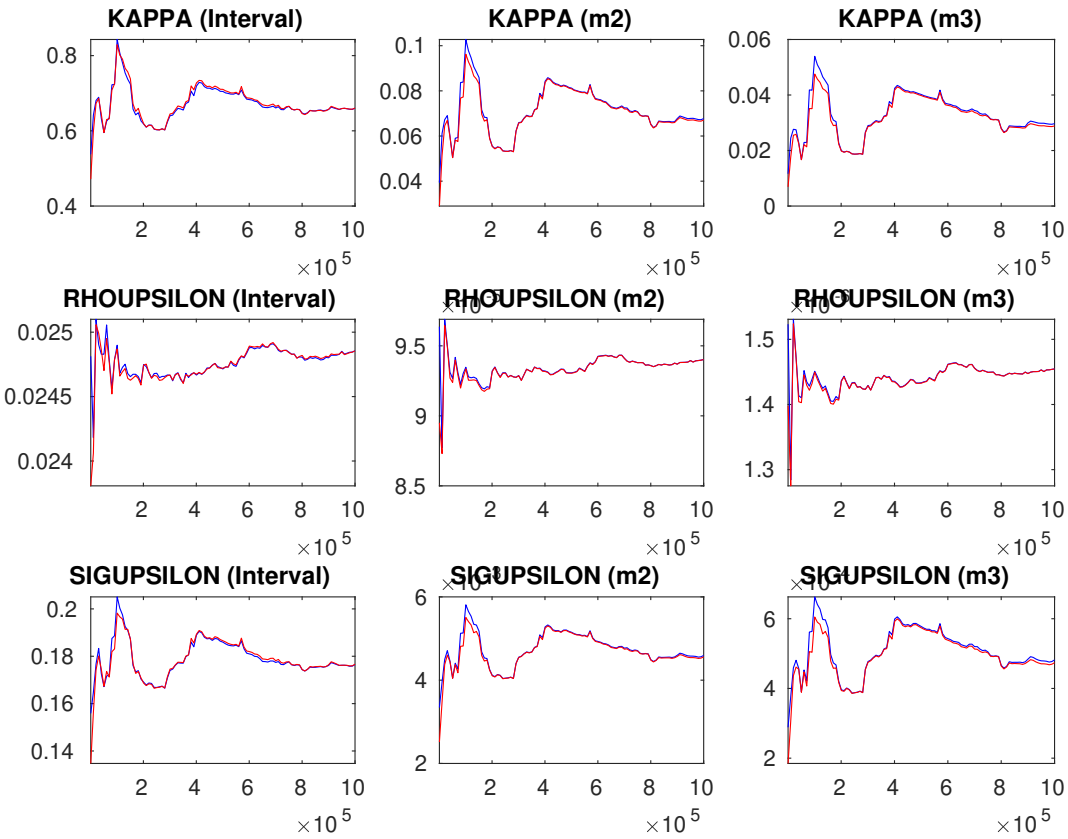

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.