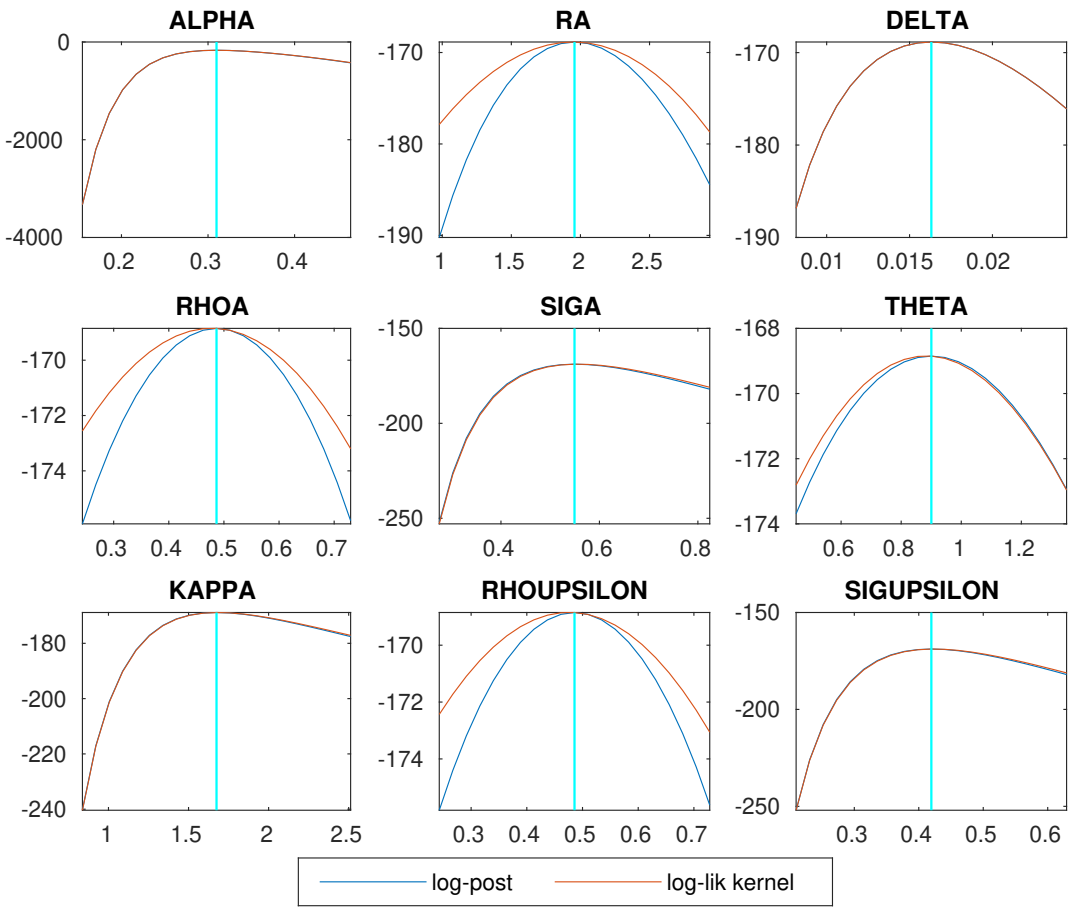

Figure 1: Check plots.

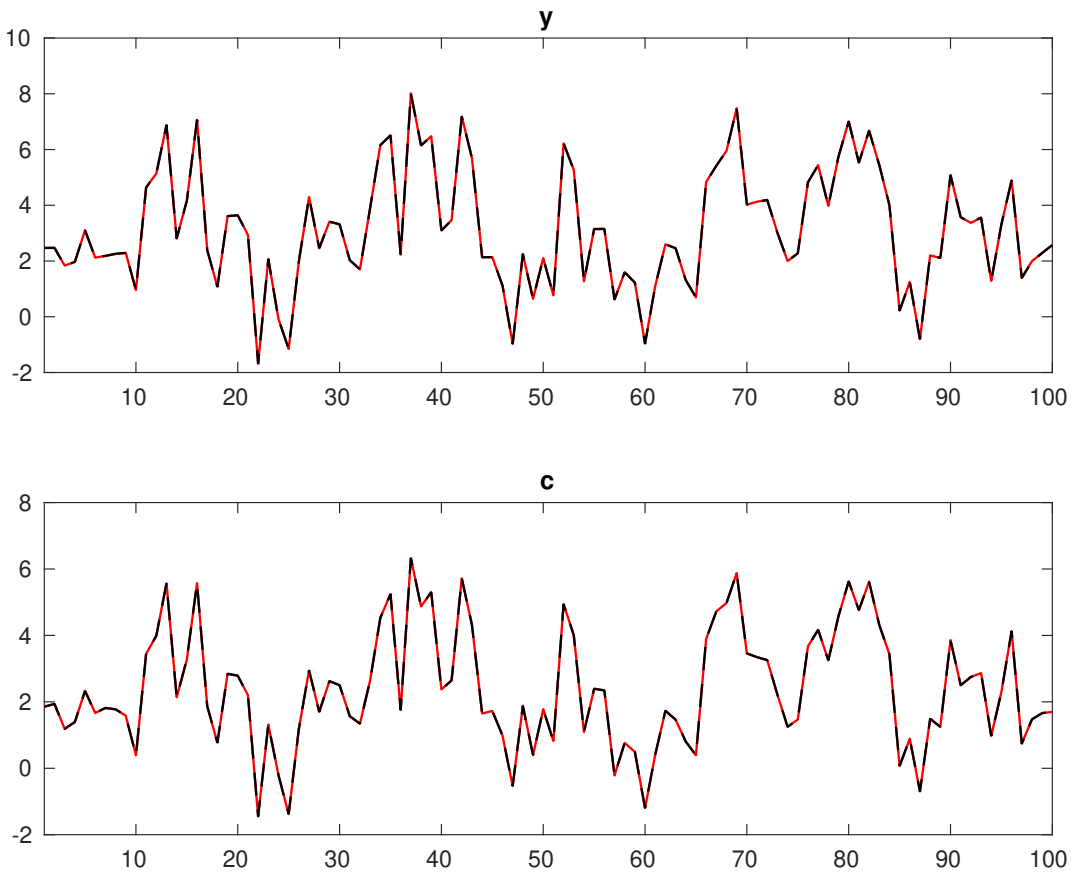

Figure 2: Historical and smoothed variables.

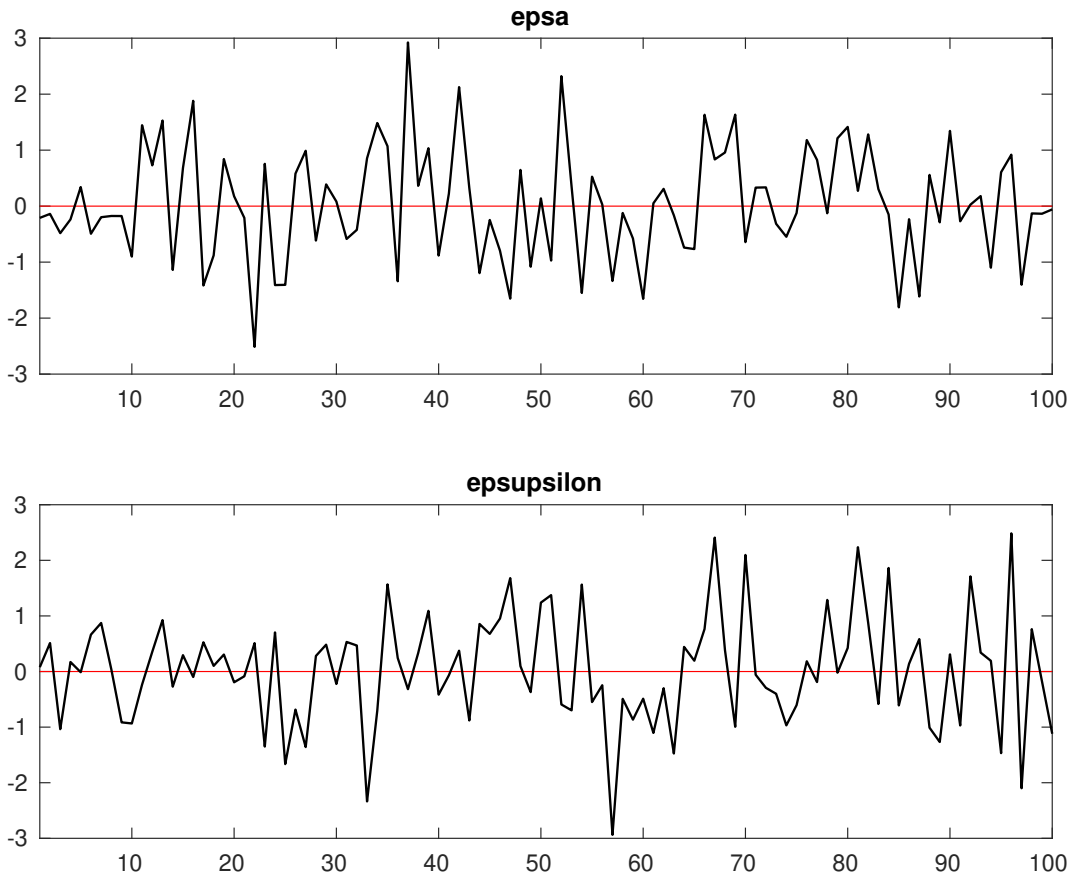

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	57.205	53.105	58.017	53.175
r_A	29.771	28.371	28.141	31.396
δ	164.683	139.731	217.764	149.572
ρ_A	30.927	29.057	32.326	31.856
σ_A	112.290	99.679	133.707	101.071
θ	84.973	84.111	83.981	83.756
κ	77.625	83.342	93.927	89.846
ρ_υ	29.938	29.718	30.485	31.156
σ_υ	78.190	86.916	90.262	81.682

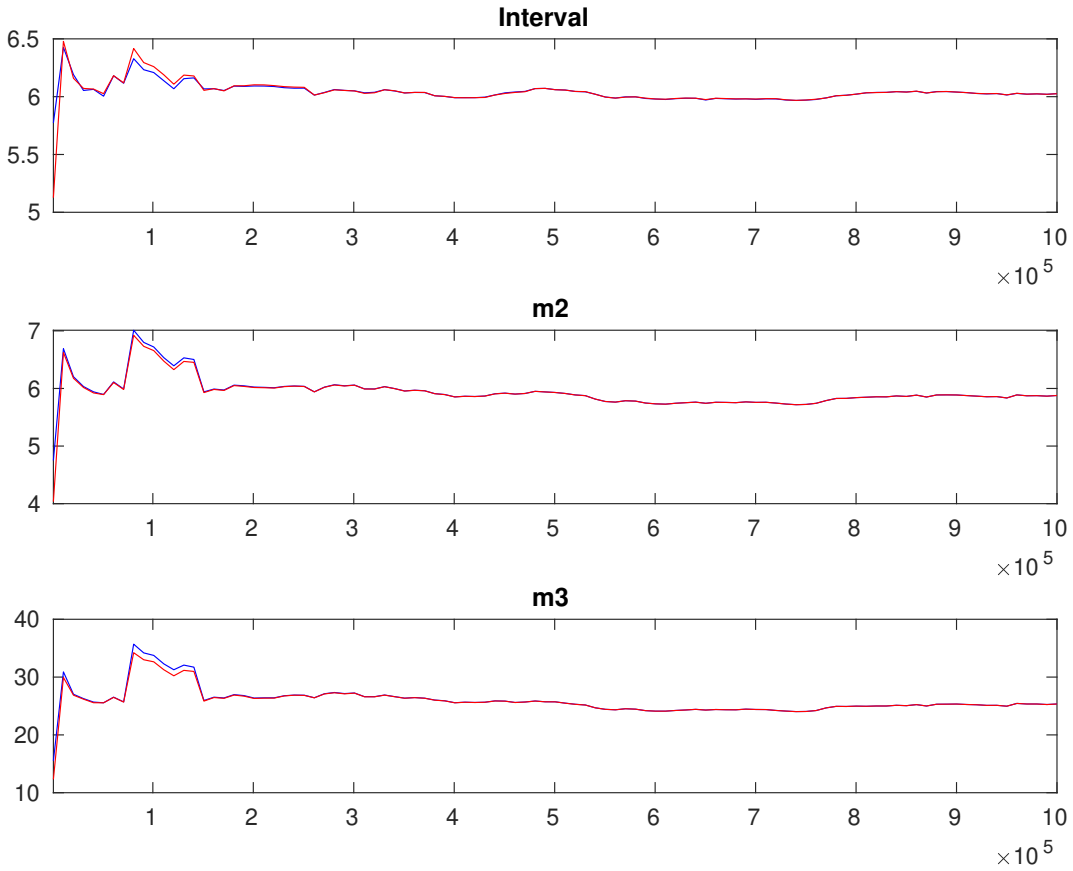

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	0.0112	0.2873	0.3240
r_A	gamm	2.000	0.2500	1.998	0.2496	1.5836	2.3997
δ	unif	0.500	0.2887	0.020	0.0063	0.0116	0.0288
ρ_A	beta	0.500	0.1000	0.493	0.0674	0.3825	0.6043
σ_A	invg	0.600	2.0000	0.621	0.1023	0.4638	0.7746
θ	gamm	1.500	0.7500	1.460	0.7089	0.3605	2.5067
κ	gamm	2.000	1.5000	1.974	0.4237	1.3340	2.6209
ρ_υ	beta	0.500	0.1000	0.495	0.0696	0.3819	0.6105
σ_υ	invg	0.600	2.0000	0.526	0.1166	0.3424	0.7003

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.3098	0.0101
r_A	gamm	2.000	0.2500	1.9571	0.2457
δ	unif	0.500	0.2887	0.0163	0.0035
ρ_A	beta	0.500	0.1000	0.4866	0.0673
σ_A	invg	0.600	2.0000	0.5494	0.0711
θ	gamm	1.500	0.7500	0.9005	0.5250
κ	gamm	2.000	1.5000	1.6747	0.2915
ρ_υ	beta	0.500	0.1000	0.4856	0.0696
σ_υ	invg	0.600	2.0000	0.4195	0.0868

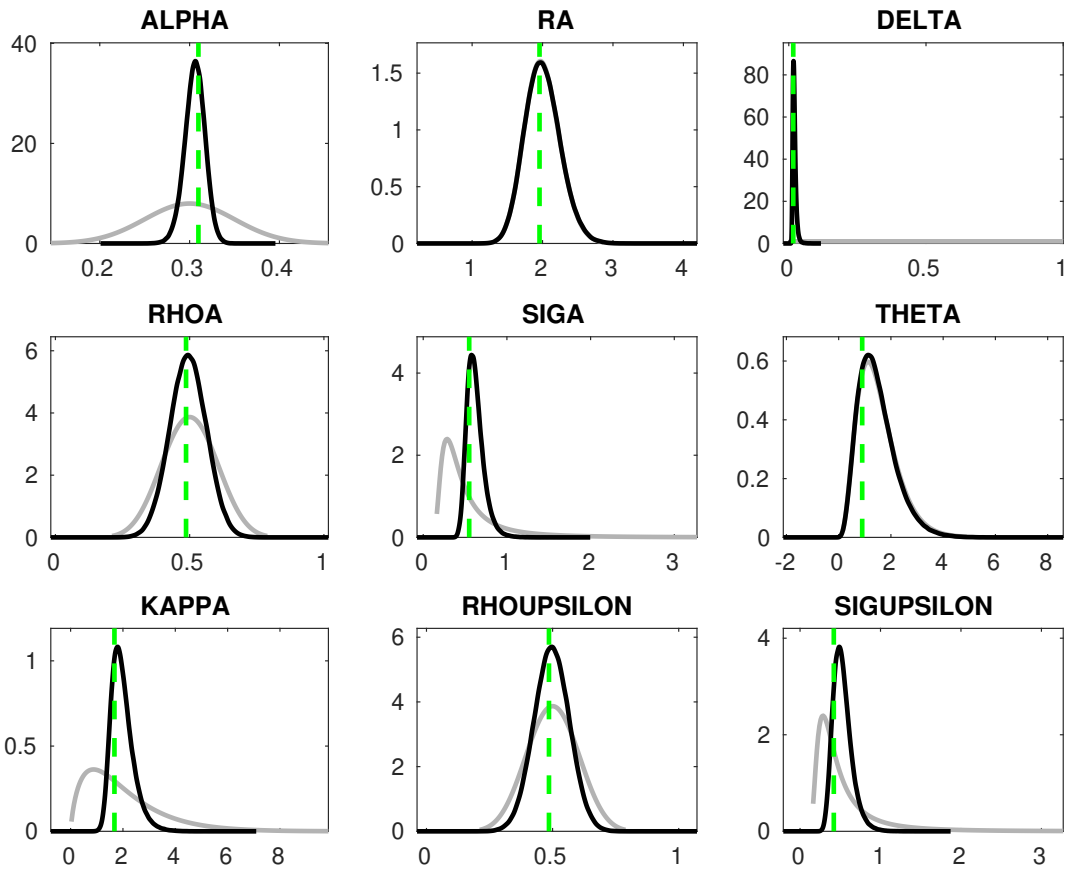

Figure 5: Priors and posteriors.

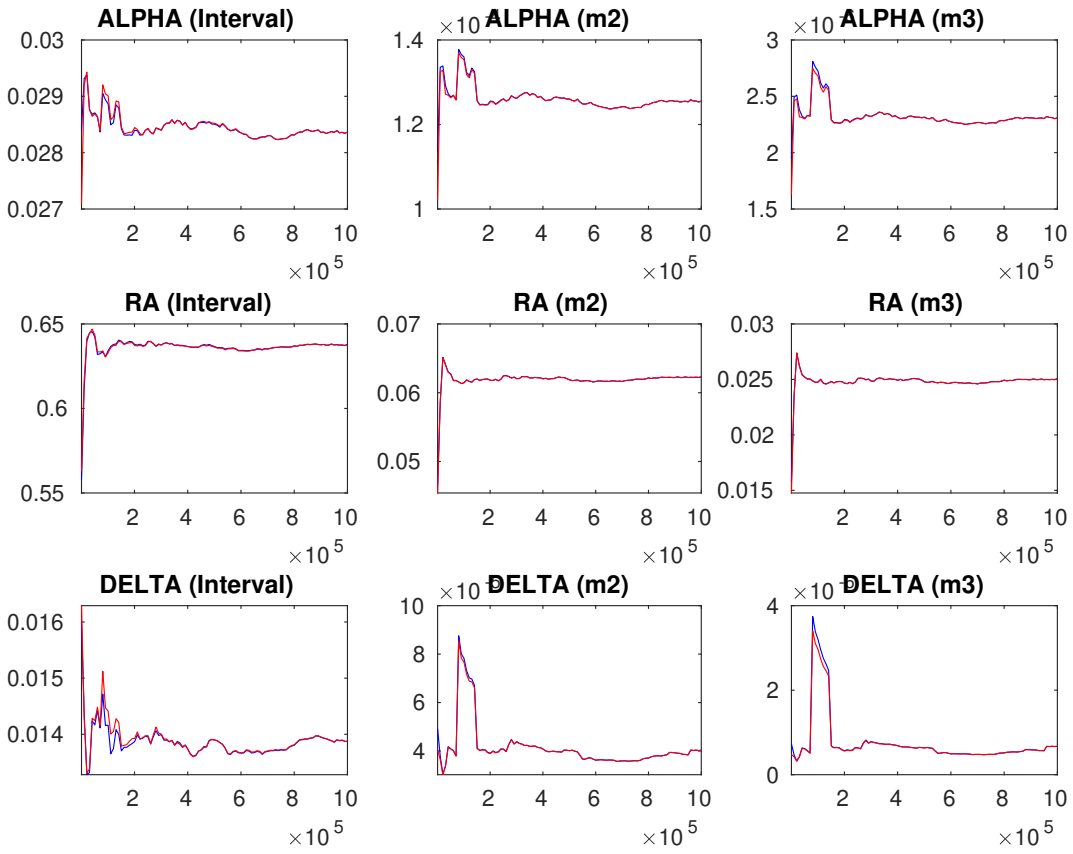

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

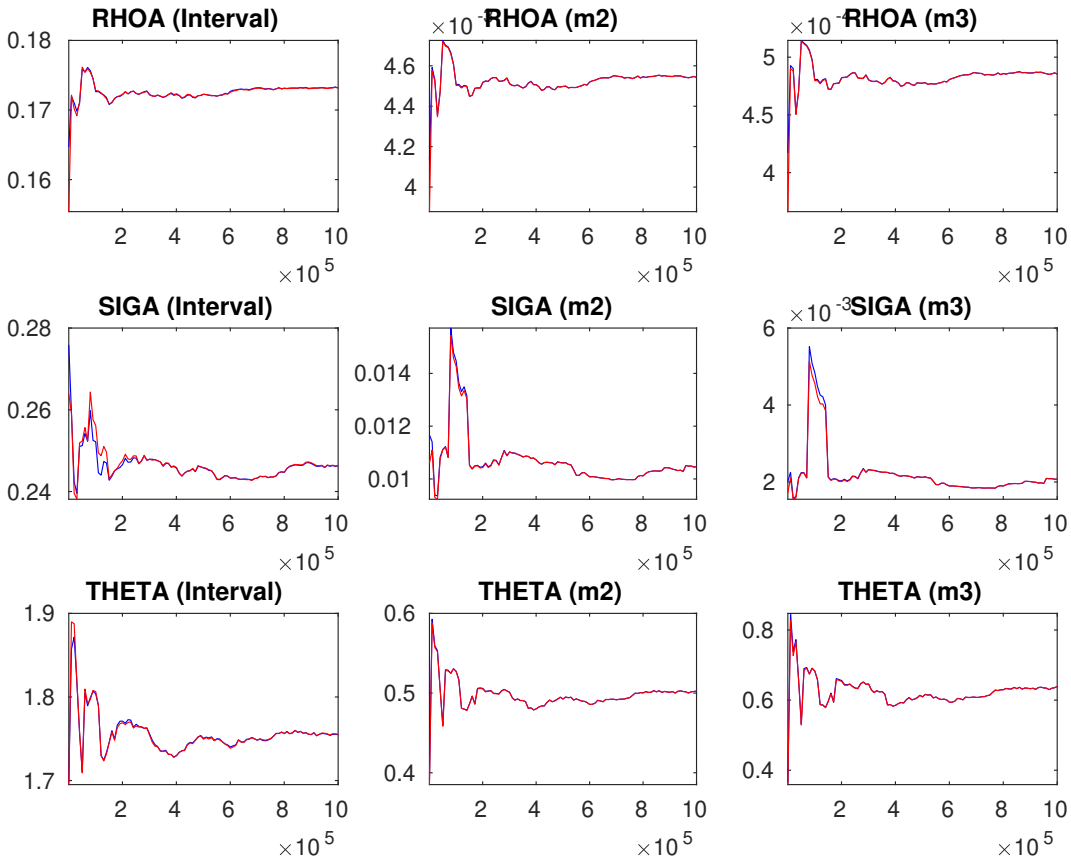

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

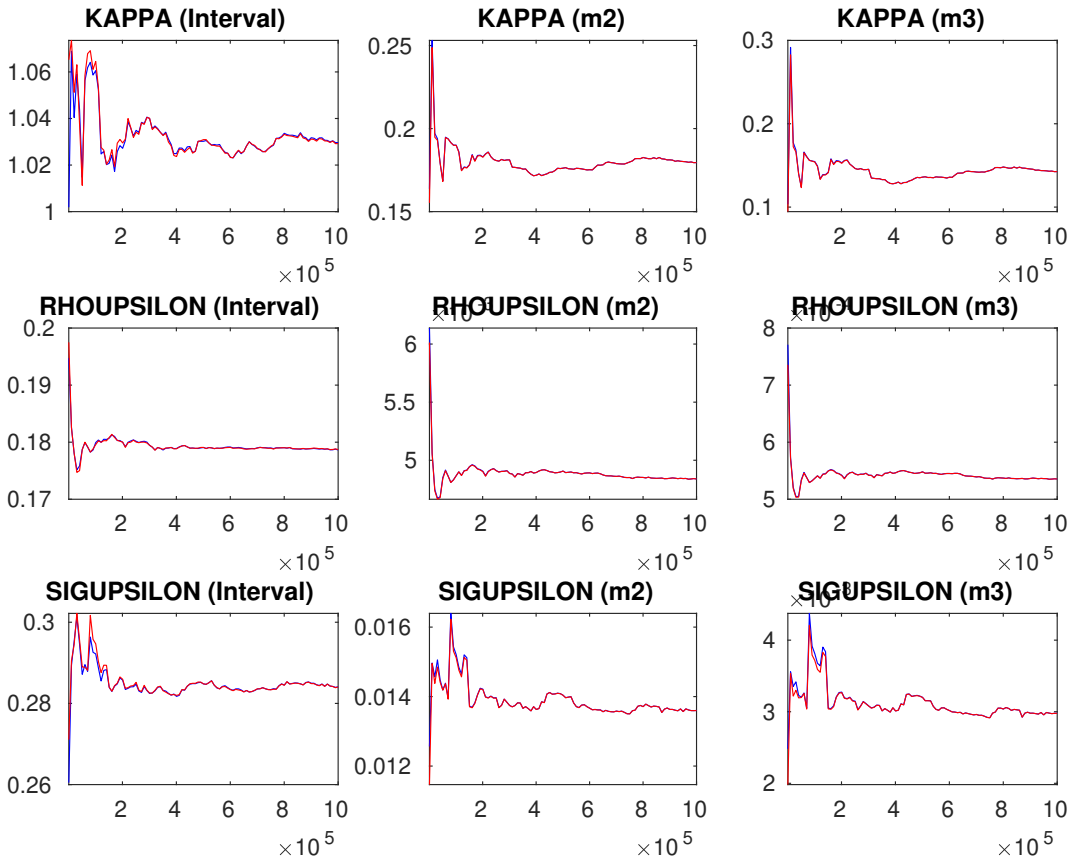

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.