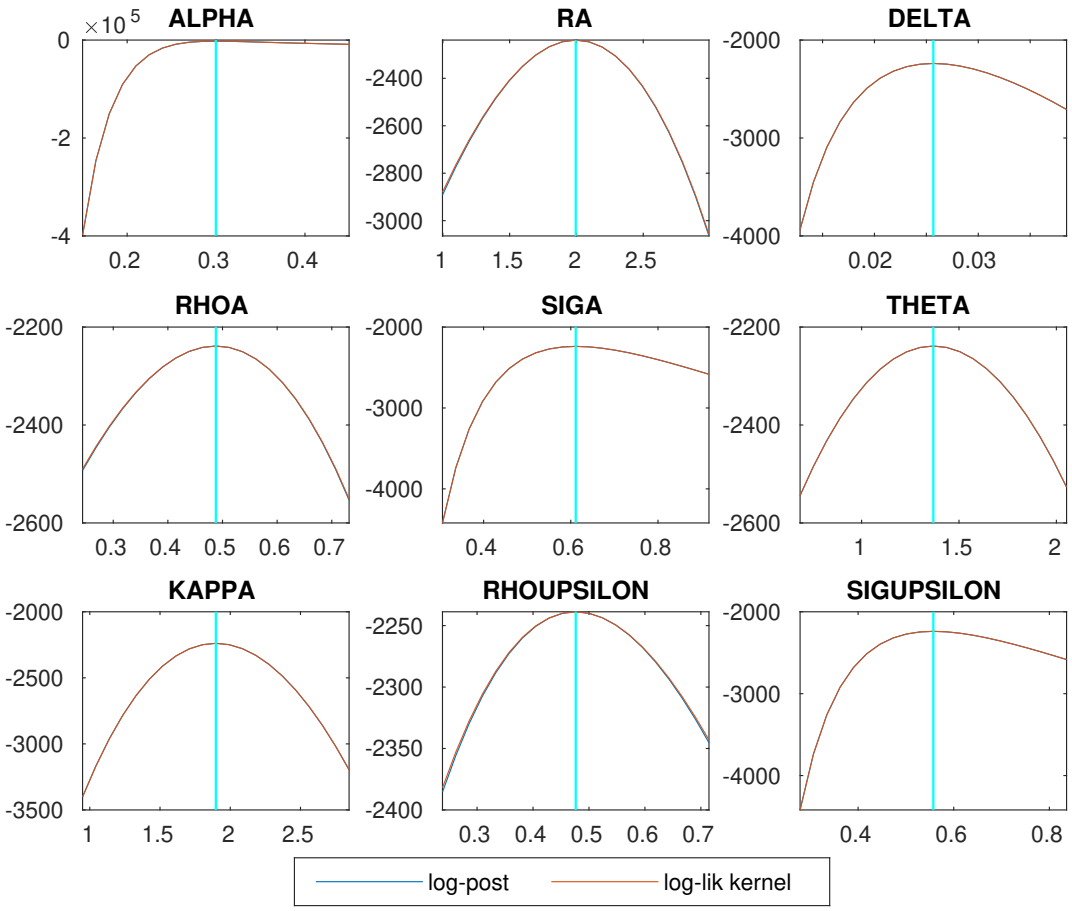

Figure 1: Check plots.

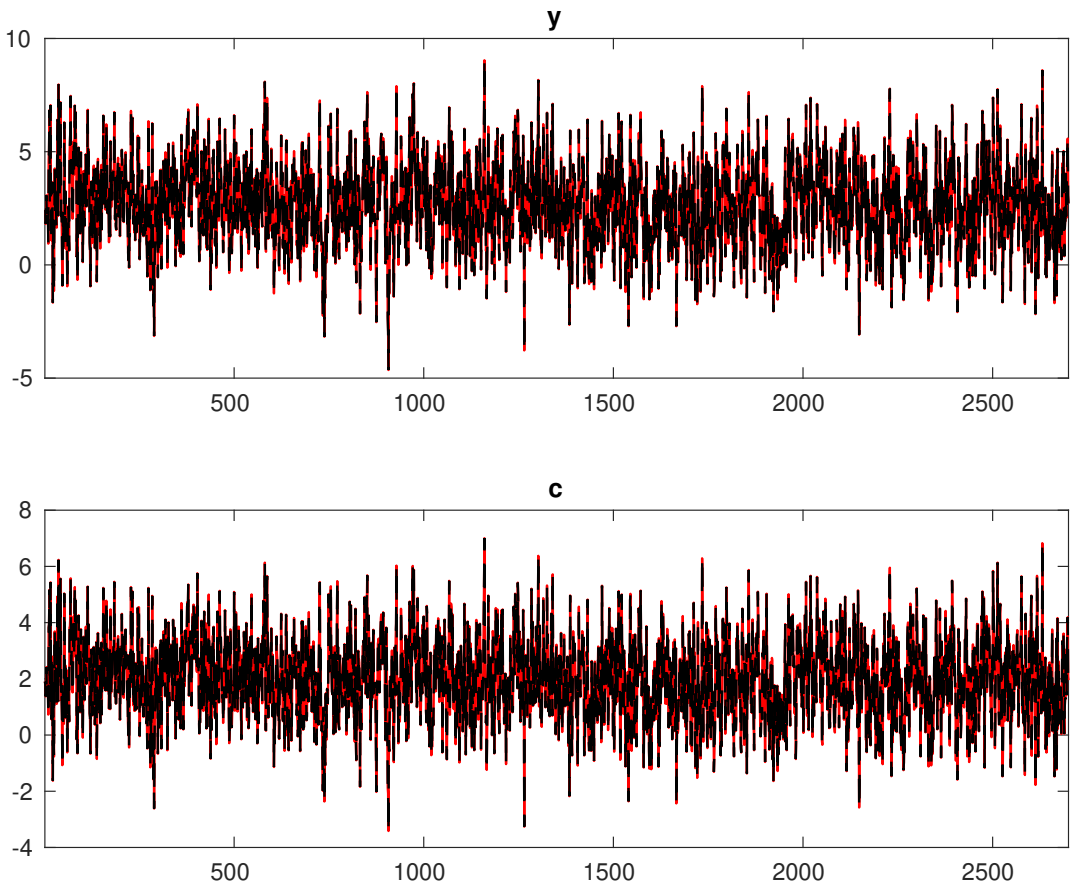

Figure 2: Historical and smoothed variables.

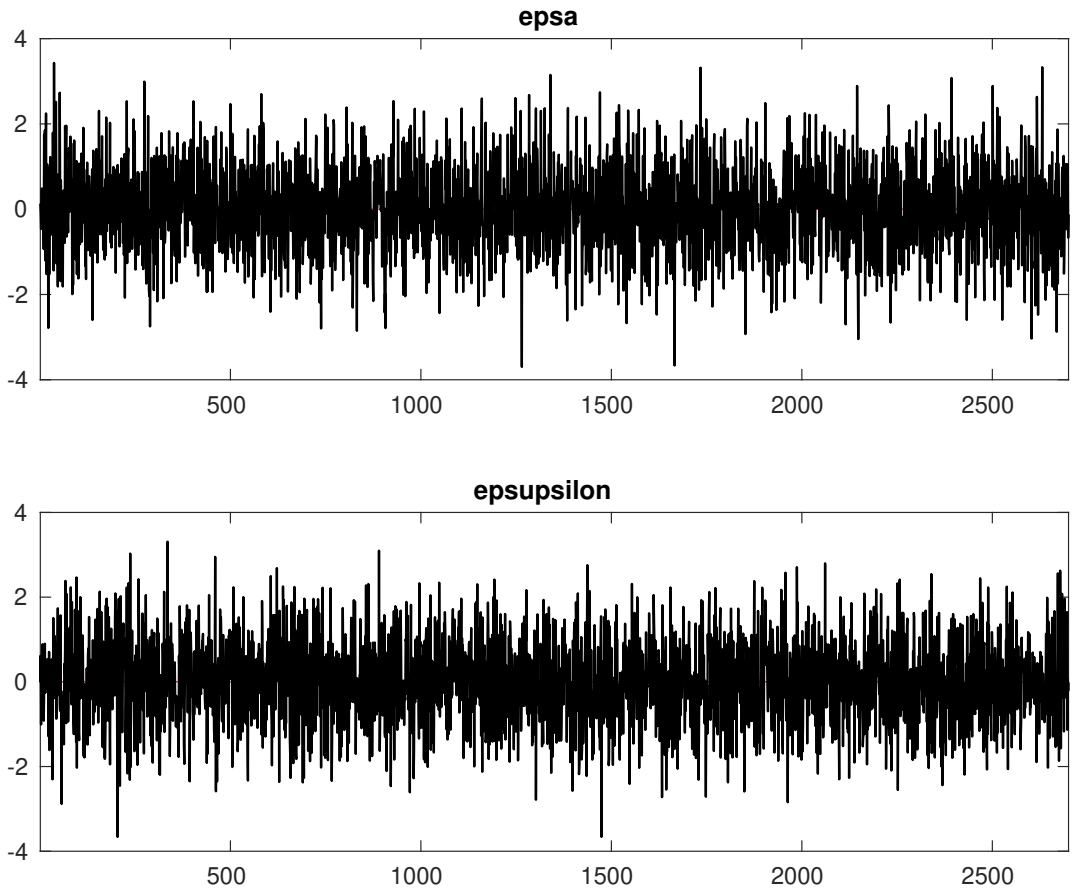

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	35.493	35.471	34.353	34.987
r_A	35.557	36.018	37.823	37.764
δ	36.789	35.710	37.129	36.579
ρ_A	31.790	31.279	32.088	30.516
σ_A	37.981	35.243	33.767	34.657
θ	33.629	33.812	35.289	32.713
κ	34.037	33.903	35.597	31.908
ρ_υ	30.626	30.465	33.385	30.297
σ_υ	38.438	33.372	35.708	34.065

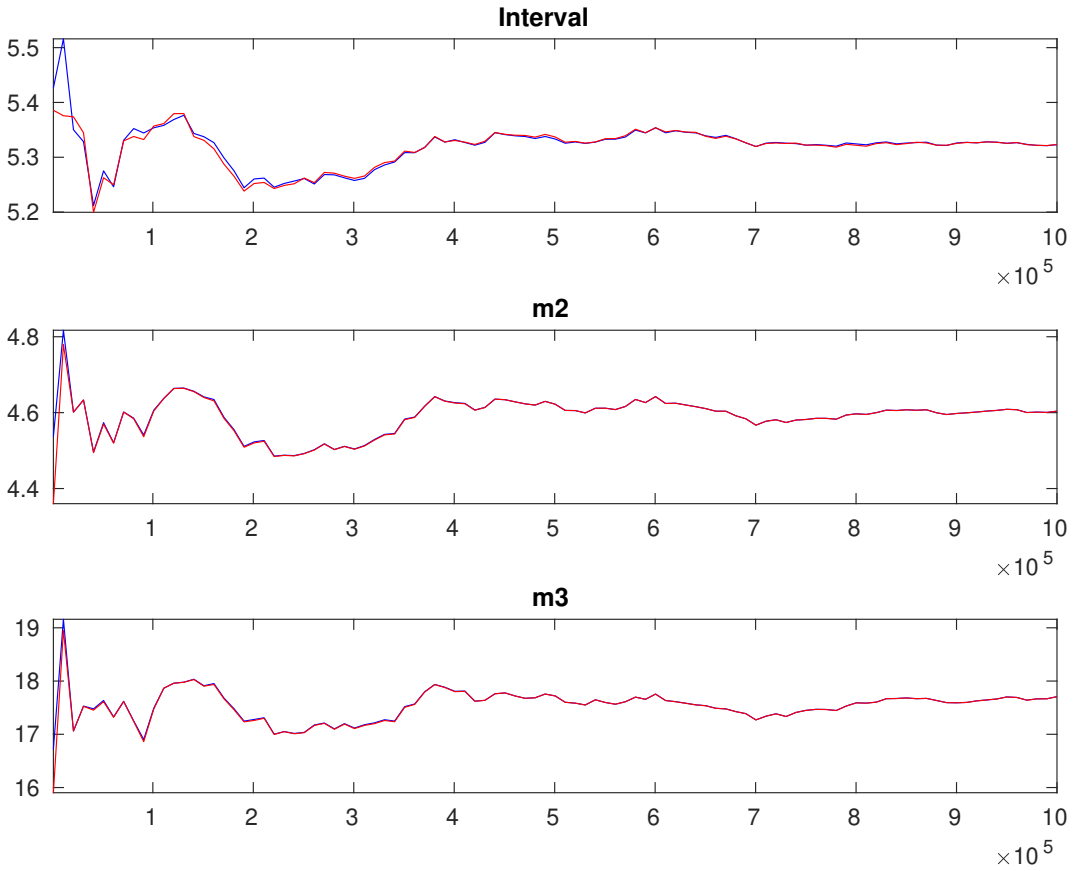

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	0.0046	0.2923	0.3073
r_A	gamm	2.000	0.2500	2.025	0.2450	1.6230	2.4251
δ	unif	0.500	0.2887	0.026	0.0018	0.0232	0.0290
ρ_A	beta	0.500	0.1000	0.489	0.0165	0.4628	0.5171
σ_A	invg	0.600	2.0000	0.616	0.0224	0.5793	0.6527
θ	gamm	1.500	0.7500	1.386	0.0838	1.2480	1.5222
κ	gamm	2.000	1.5000	1.911	0.0609	1.8105	2.0102
ρ_υ	beta	0.500	0.1000	0.478	0.0171	0.4501	0.5064
σ_υ	invg	0.600	2.0000	0.567	0.0309	0.5163	0.6173

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2997	0.0046
r_A	gamm	2.000	0.2500	1.9947	0.2443
δ	unif	0.500	0.2887	0.0257	0.0017
ρ_A	beta	0.500	0.1000	0.4878	0.0165
σ_A	invg	0.600	2.0000	0.6113	0.0218
θ	gamm	1.500	0.7500	1.3682	0.0817
κ	gamm	2.000	1.5000	1.8973	0.0595
ρ_υ	beta	0.500	0.1000	0.4763	0.0170
σ_υ	invg	0.600	2.0000	0.5573	0.0298

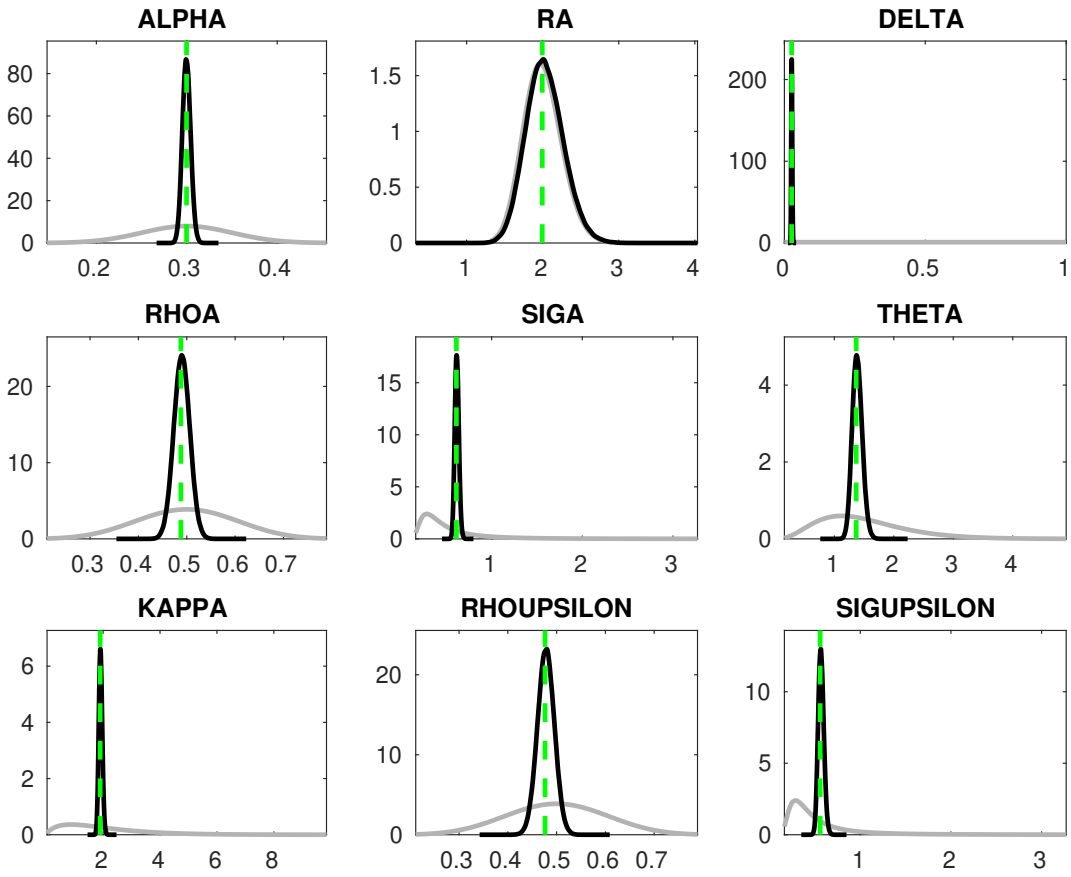

Figure 5: Priors and posteriors.

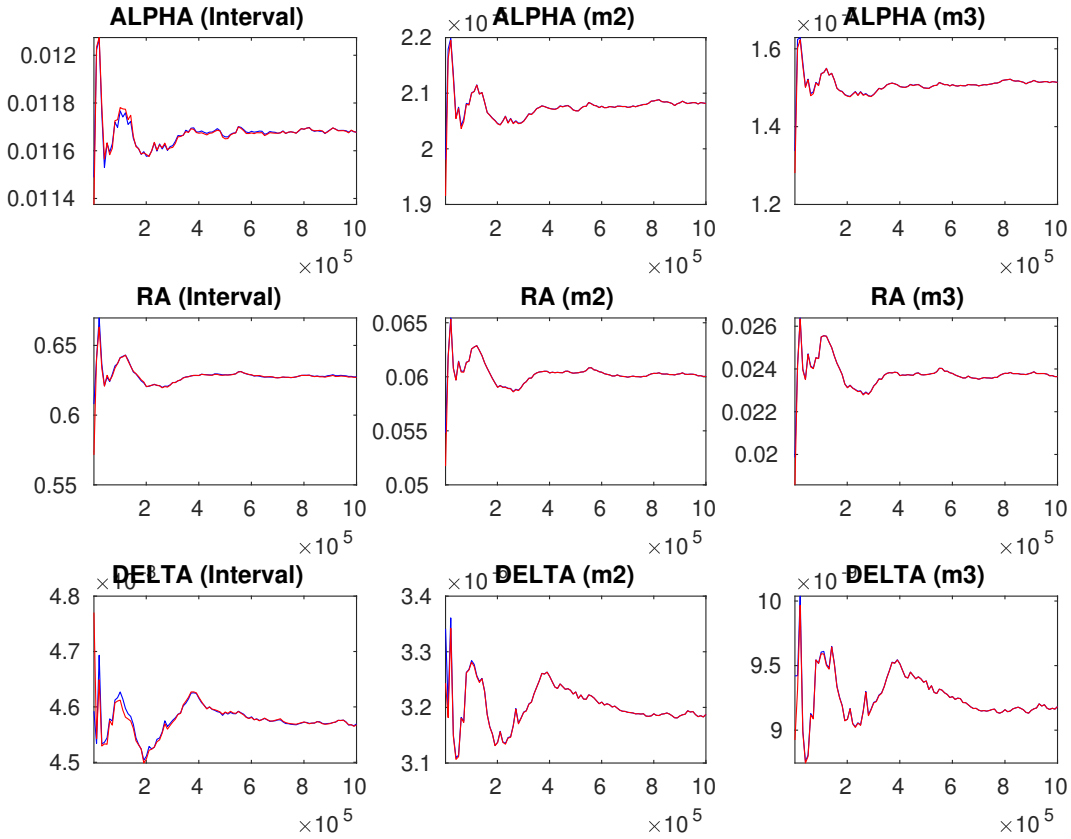

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

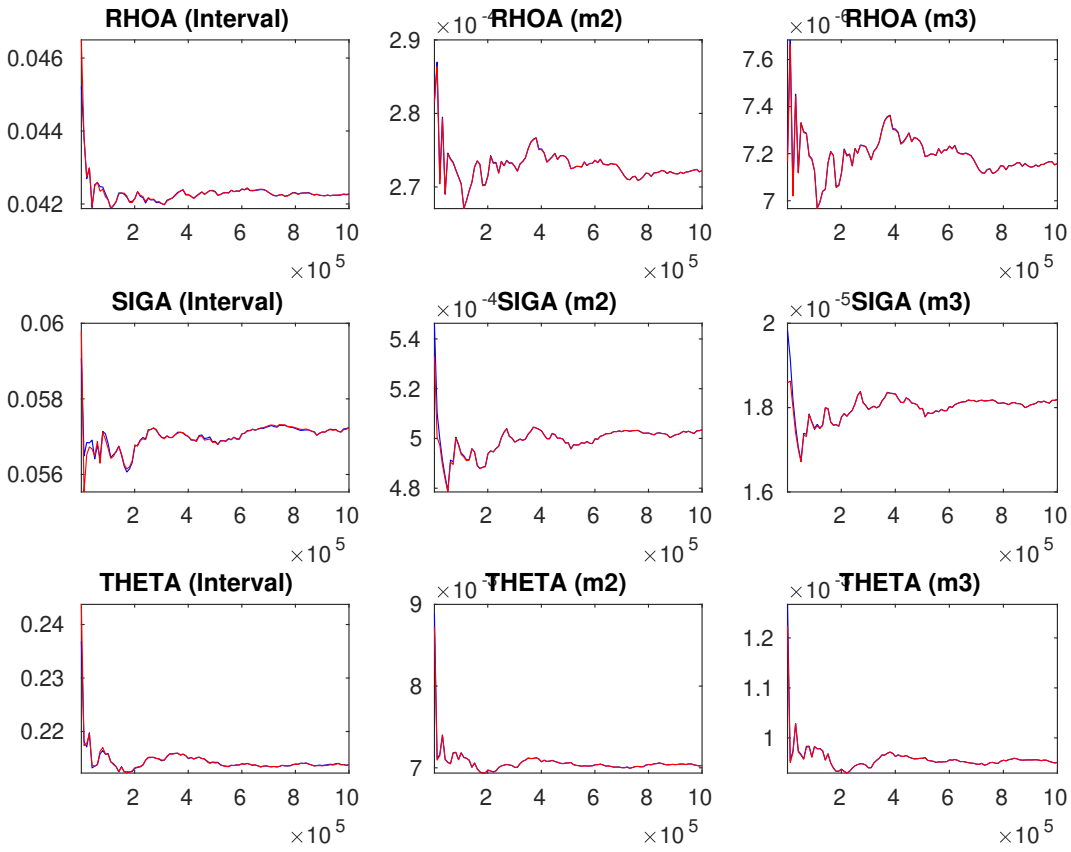

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

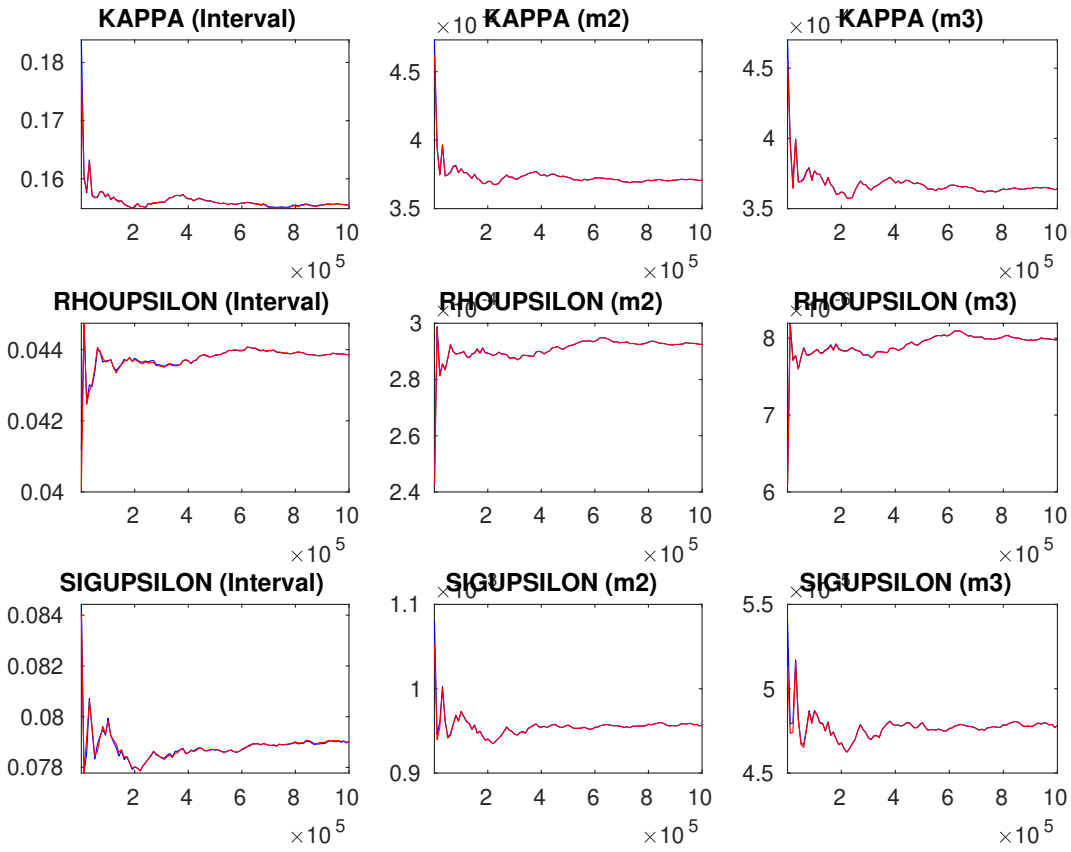

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.