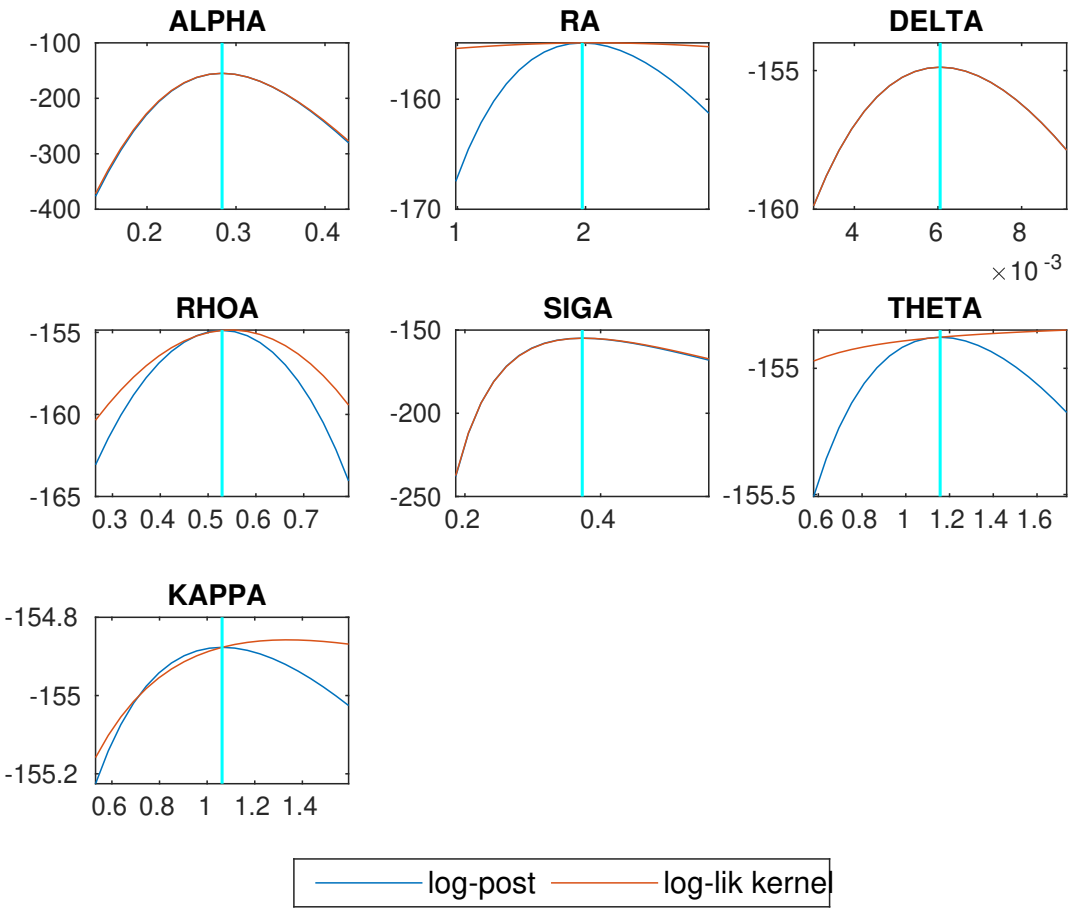

Figure 1: Check plots.

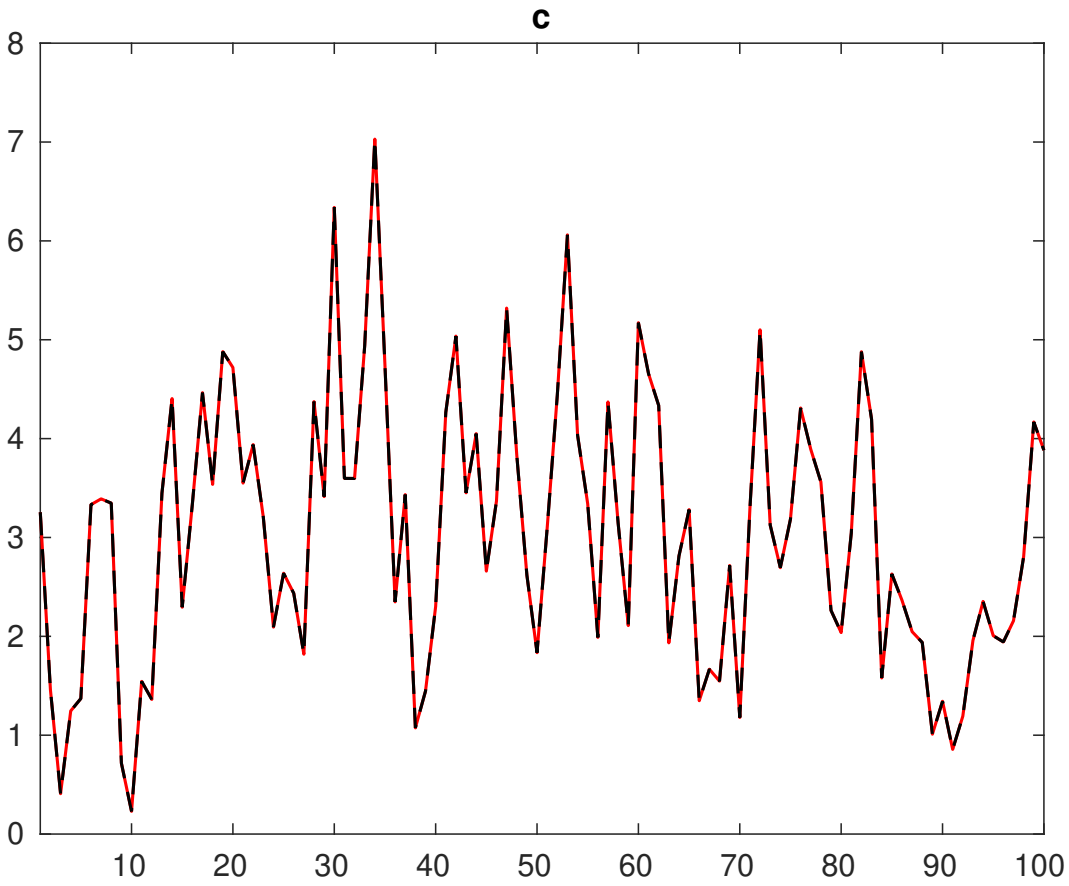

Figure 2: Historical and smoothed variables.

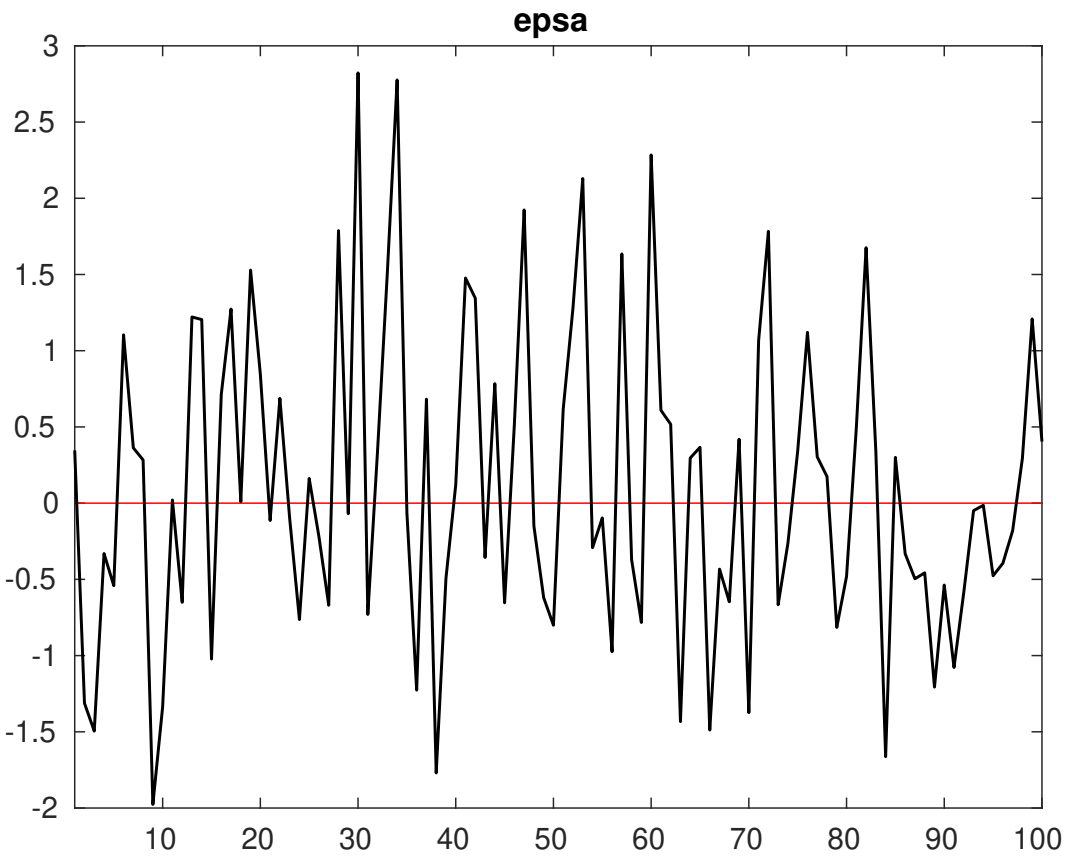

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	288.107	293.002	279.926	278.260
r_A	37.734	35.820	36.427	35.575
δ	495.611	485.467	473.505	479.500
ρ_A	44.326	43.818	41.466	46.493
σ_A	142.620	123.464	117.109	157.398
θ	50.485	51.787	53.343	47.315
κ	84.097	75.456	80.562	84.359

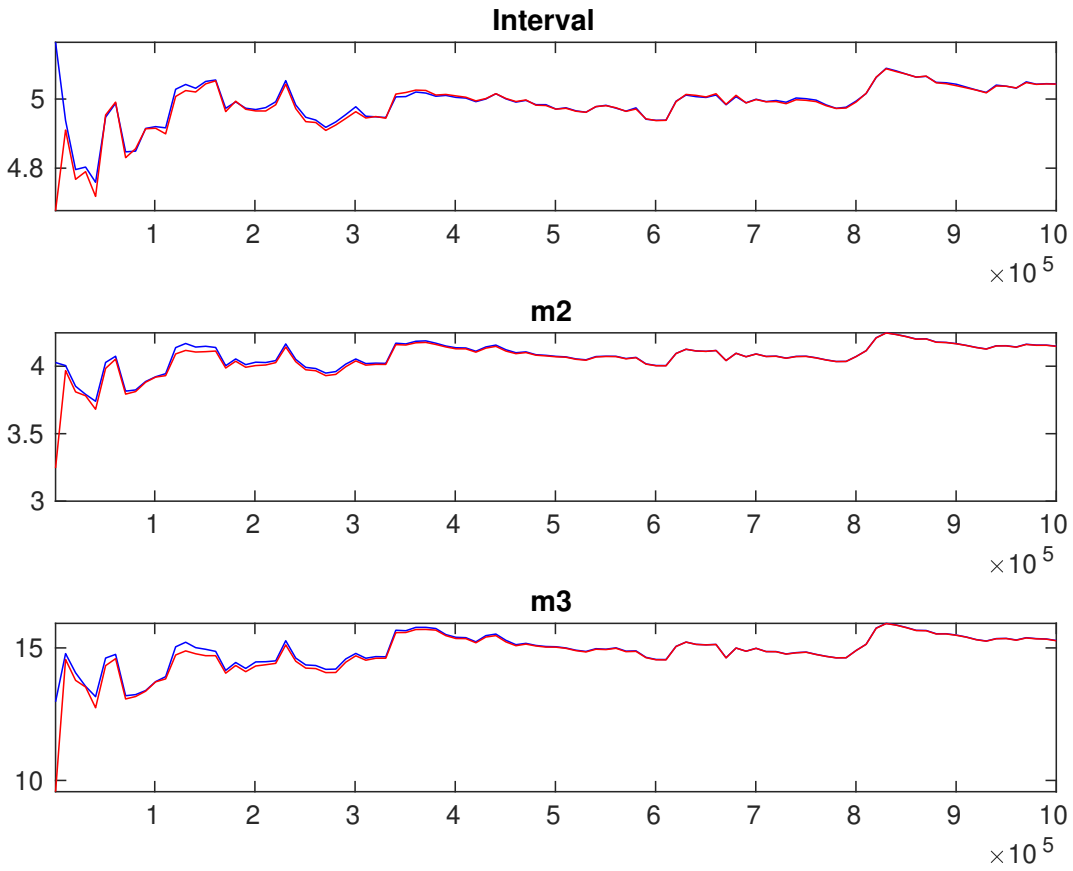

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.320	0.0442	0.2445	0.3899
r_A	gamm	2.000	0.2500	2.005	0.2506	1.5935	2.4148
δ	unif	0.500	0.2887	0.016	0.0119	0.0000	0.0325
ρ_A	beta	0.500	0.1000	0.543	0.0680	0.4298	0.6536
σ_A	invg	0.600	2.0000	0.393	0.0639	0.2952	0.4850
θ	gamm	1.500	0.7500	1.532	0.7605	0.3842	2.6686
κ	gamm	2.000	1.5000	2.047	1.5049	0.0439	4.1207

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2843	0.0488
r_A	gamm	2.000	0.2500	1.9742	0.2486
δ	unif	0.500	0.2887	0.0061	0.0072
ρ_A	beta	0.500	0.1000	0.5292	0.0688
σ_A	invg	0.600	2.0000	0.3729	0.0460
θ	gamm	1.500	0.7500	1.1570	0.6582
κ	gamm	2.000	1.5000	1.0628	1.1591

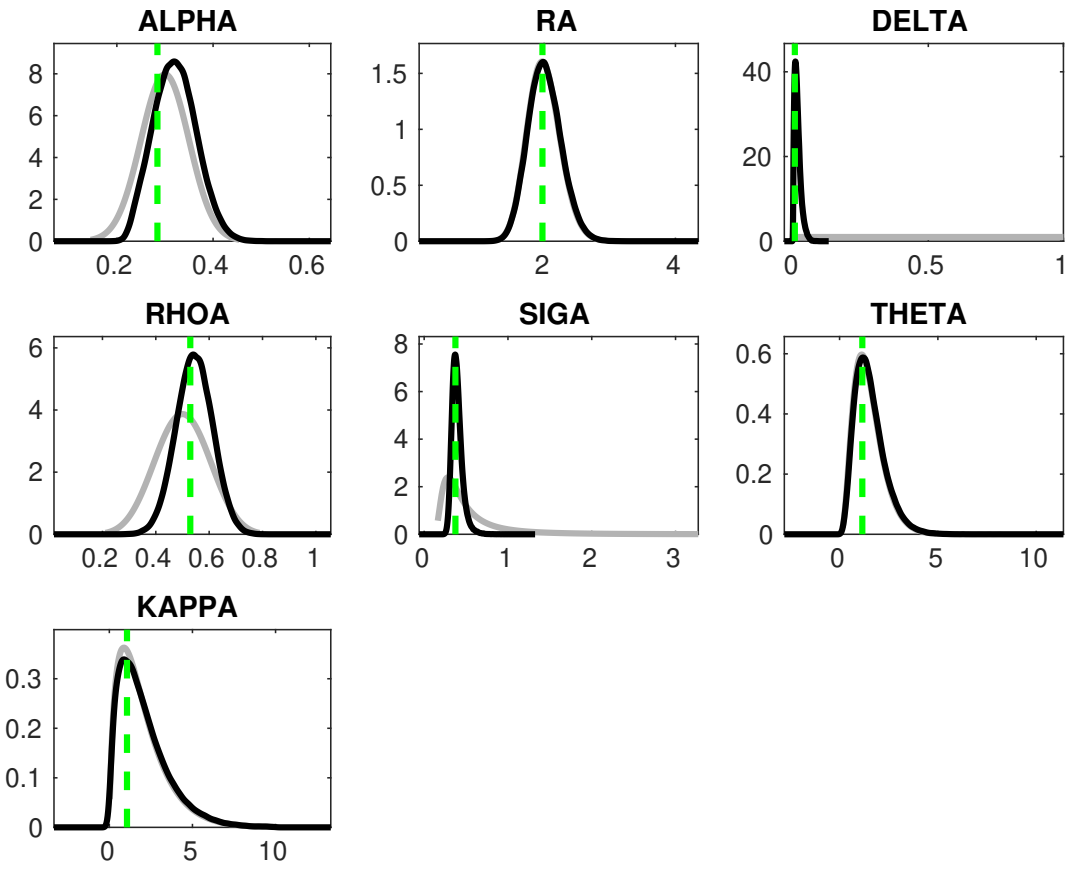

Figure 5: Priors and posteriors.

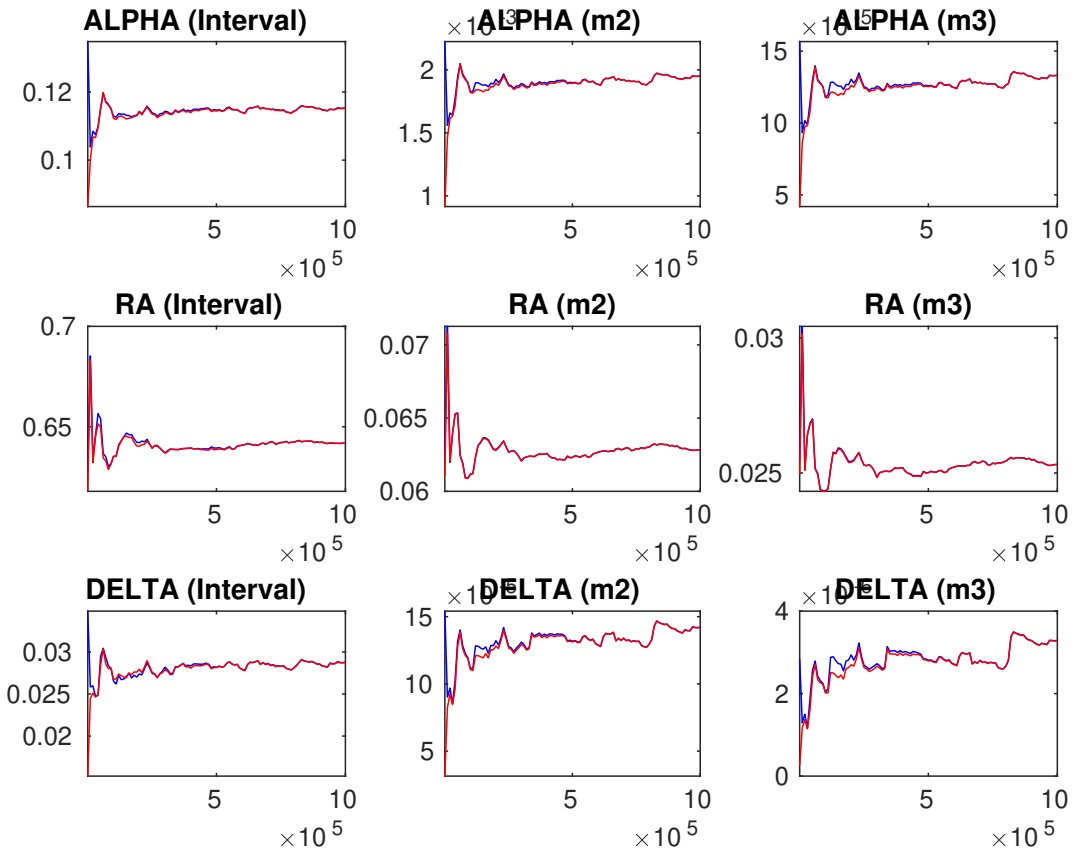

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

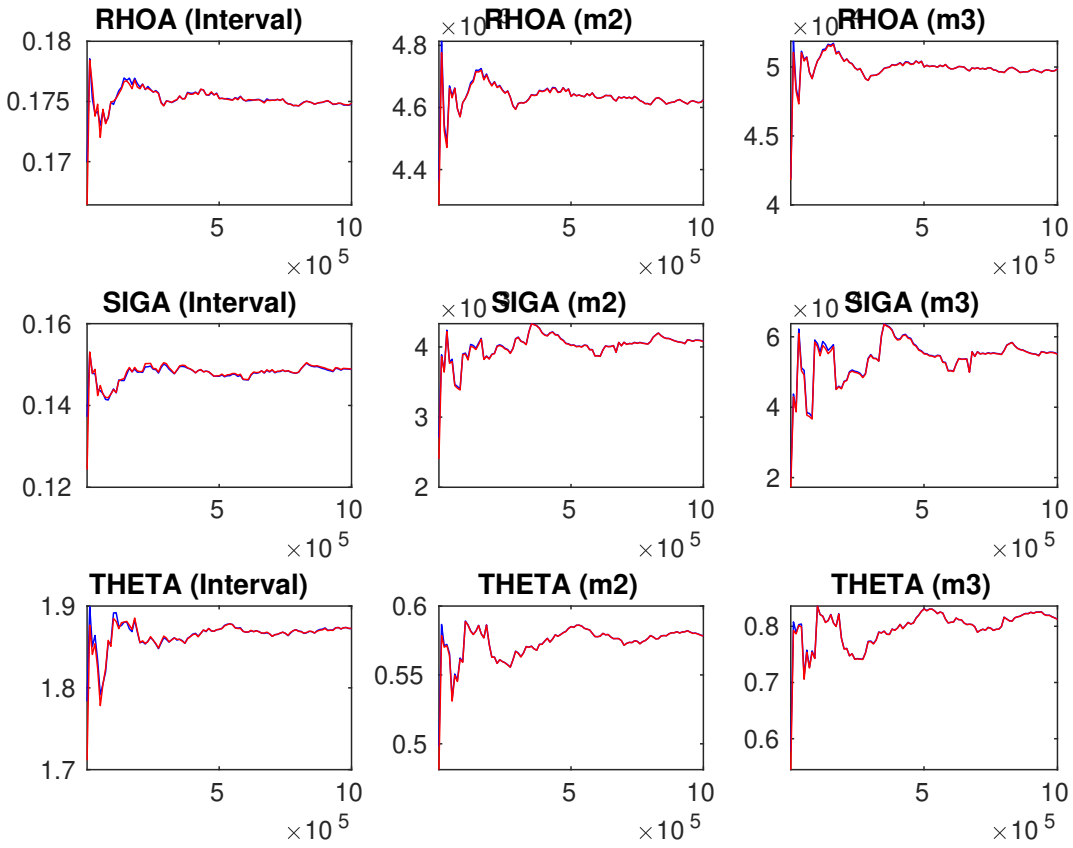

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

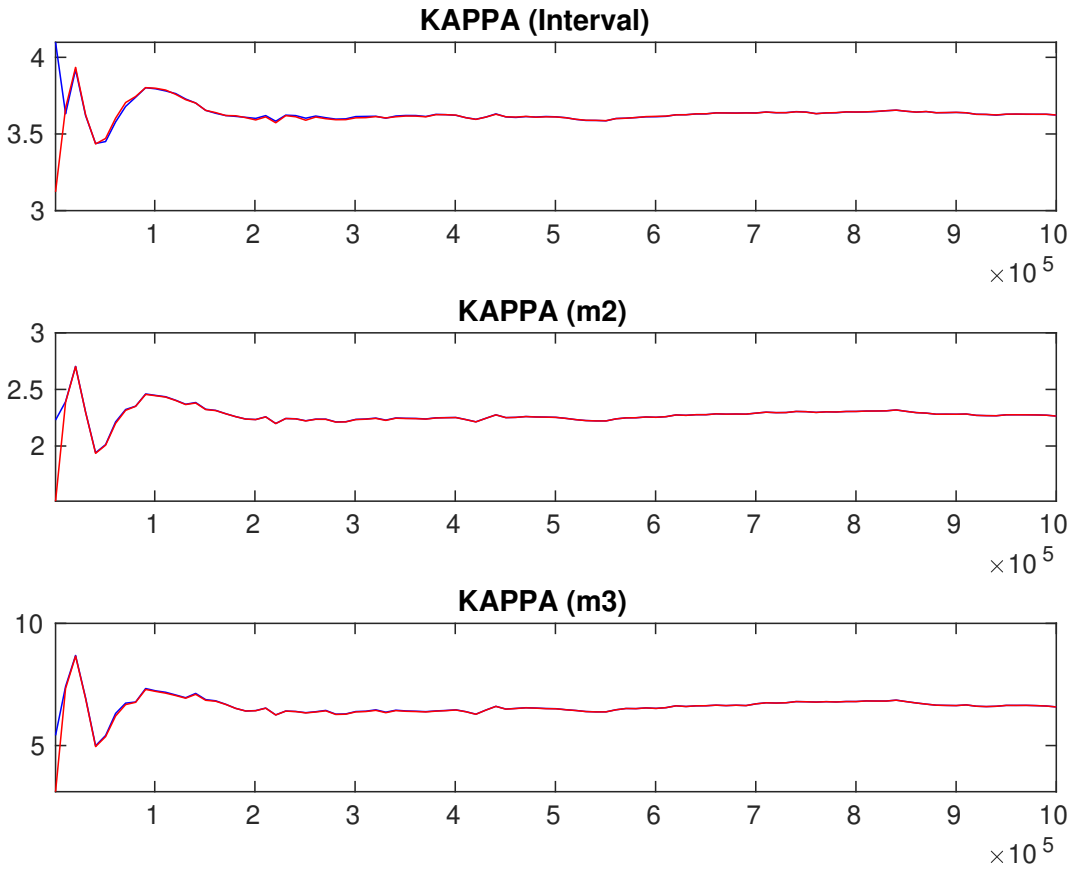

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.