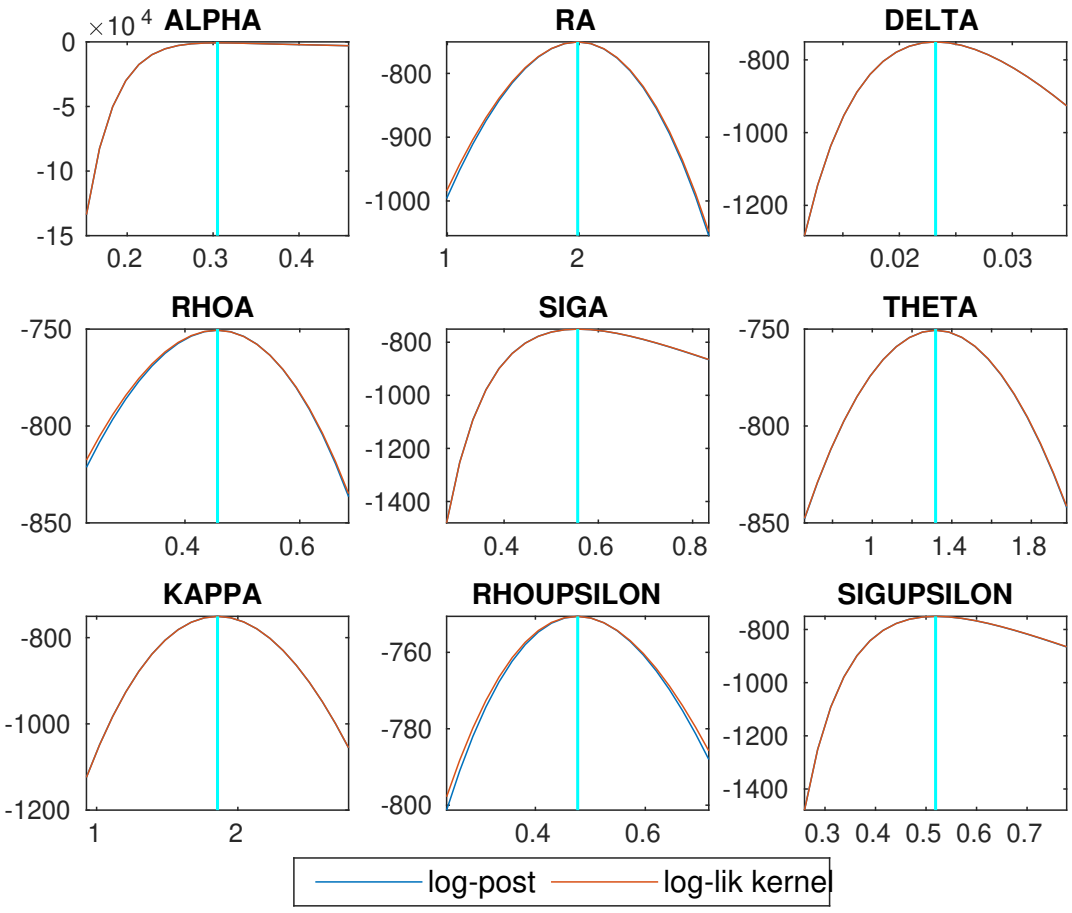

Figure 1: Check plots.

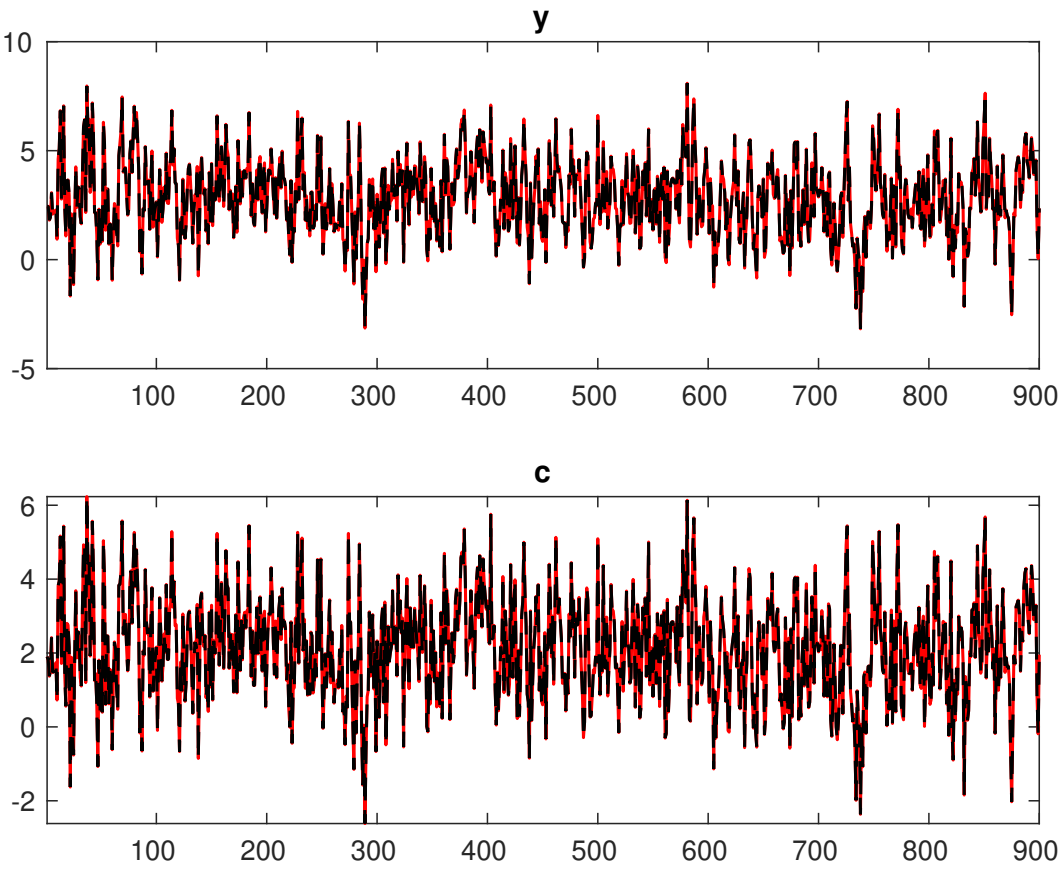

Figure 2: Historical and smoothed variables.

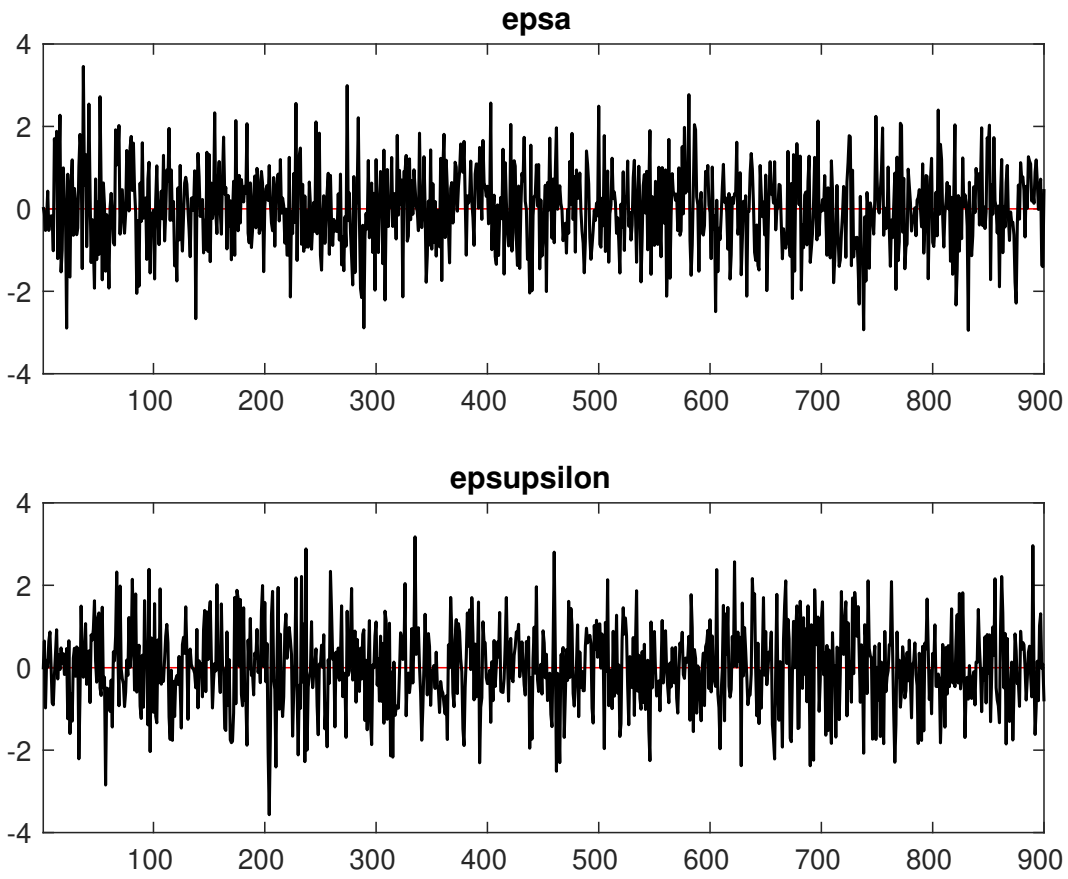

Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
α	34.924	34.930	34.029	34.881
r_A	30.997	32.484	33.680	33.783
δ	38.534	45.969	38.154	38.859
ρ_A	28.316	31.568	32.265	31.278
σ_A	39.273	43.464	37.326	38.277
θ	36.230	36.454	36.202	36.794
κ	33.579	34.735	37.422	35.245
ρ_υ	31.030	29.552	31.676	28.023
σ_υ	39.385	39.231	37.761	40.619

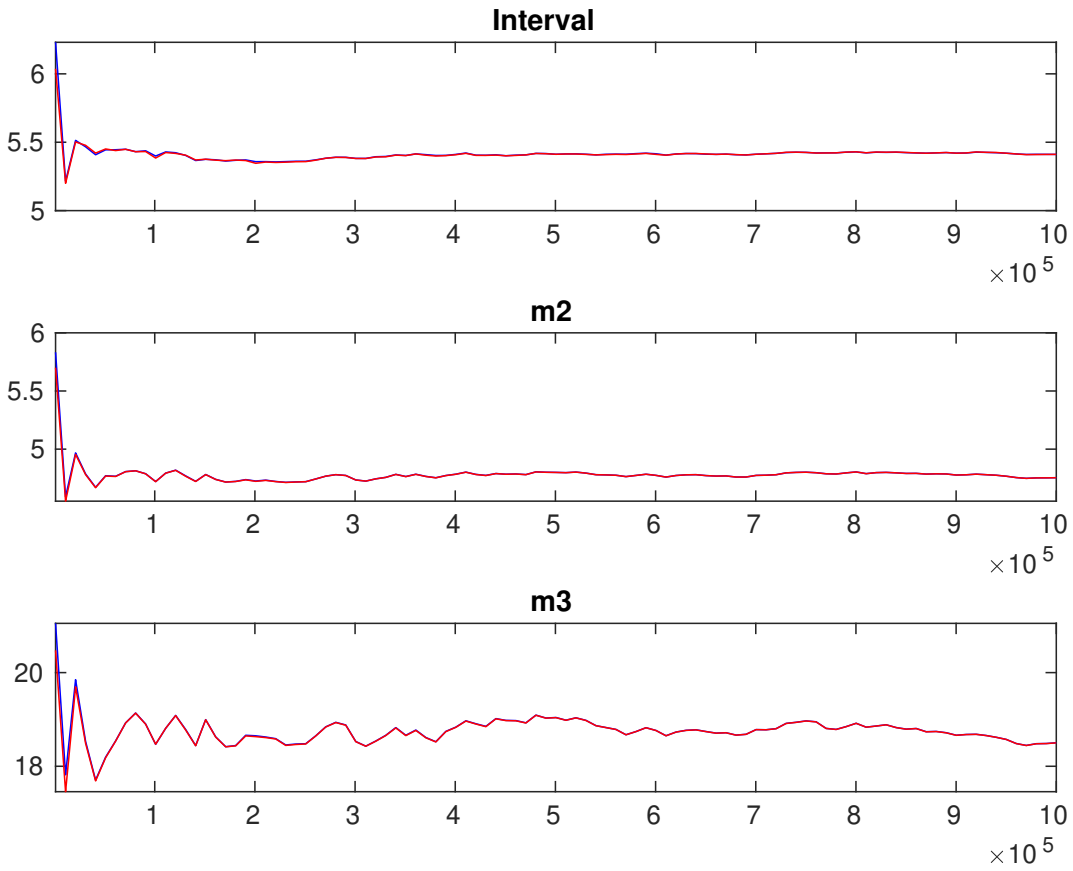

Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.305	0.0055	0.2956	0.3138
r_A	gamm	2.000	0.2500	2.023	0.2495	1.6069	2.4230
δ	unif	0.500	0.2887	0.024	0.0022	0.0204	0.0276
ρ_A	beta	0.500	0.1000	0.462	0.0284	0.4151	0.5086
σ_A	invg	0.600	2.0000	0.567	0.0321	0.5135	0.6182
θ	gamm	1.500	0.7500	1.376	0.1530	1.1206	1.6167
κ	gamm	2.000	1.5000	1.897	0.1072	1.7218	2.0705
ρ_υ	beta	0.500	0.1000	0.481	0.0291	0.4326	0.5285
σ_υ	invg	0.600	2.0000	0.544	0.0506	0.4607	0.6245

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.3051	0.0055
r_A	gamm	2.000	0.2500	1.9890	0.2476
δ	unif	0.500	0.2887	0.0232	0.0020
ρ_A	beta	0.500	0.1000	0.4567	0.0282
σ_A	invg	0.600	2.0000	0.5562	0.0302
θ	gamm	1.500	0.7500	1.3184	0.1414
κ	gamm	2.000	1.5000	1.8560	0.1000
ρ_υ	beta	0.500	0.1000	0.4770	0.0290
σ_υ	invg	0.600	2.0000	0.5189	0.0457

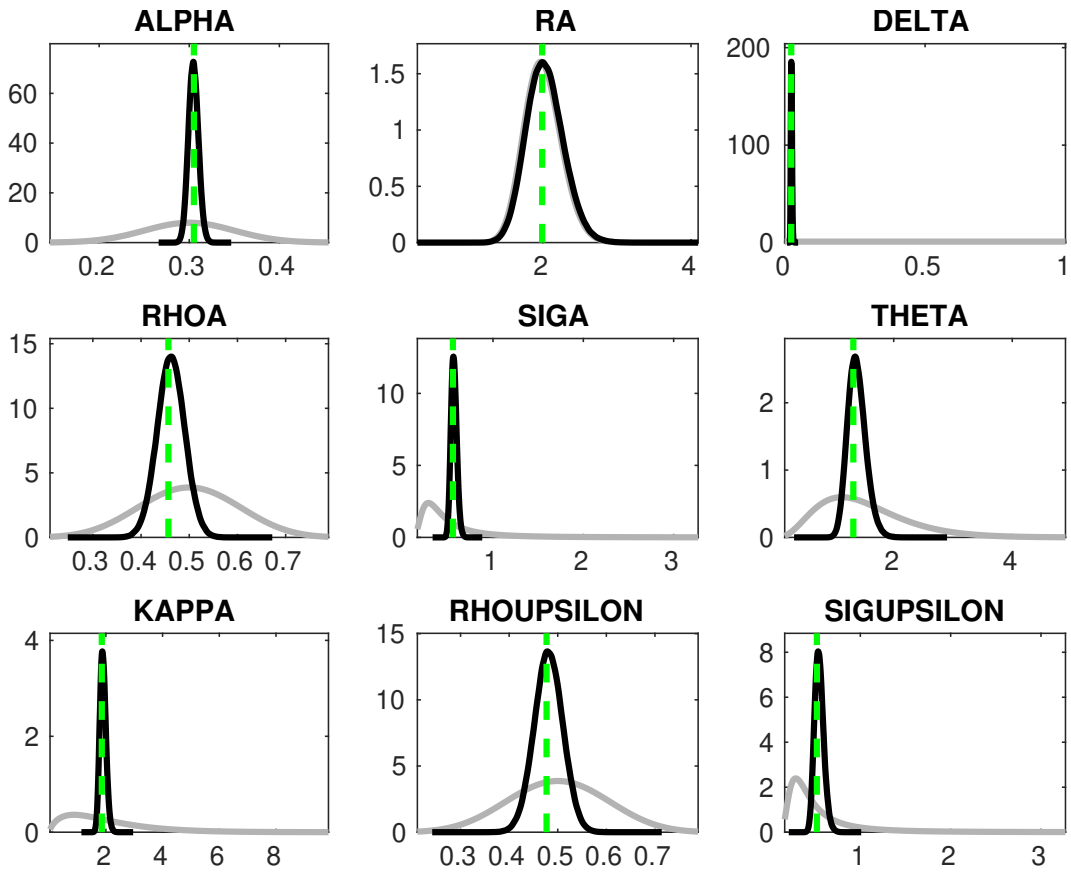

Figure 5: Priors and posteriors.

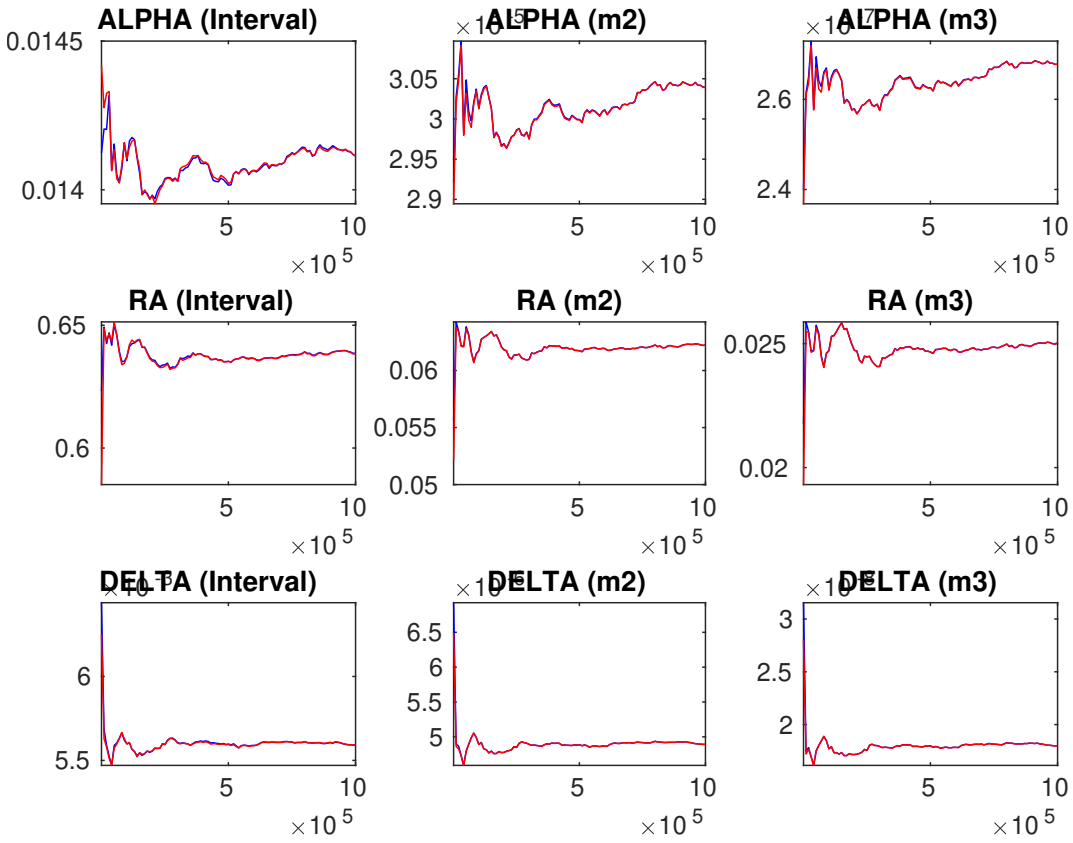

Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

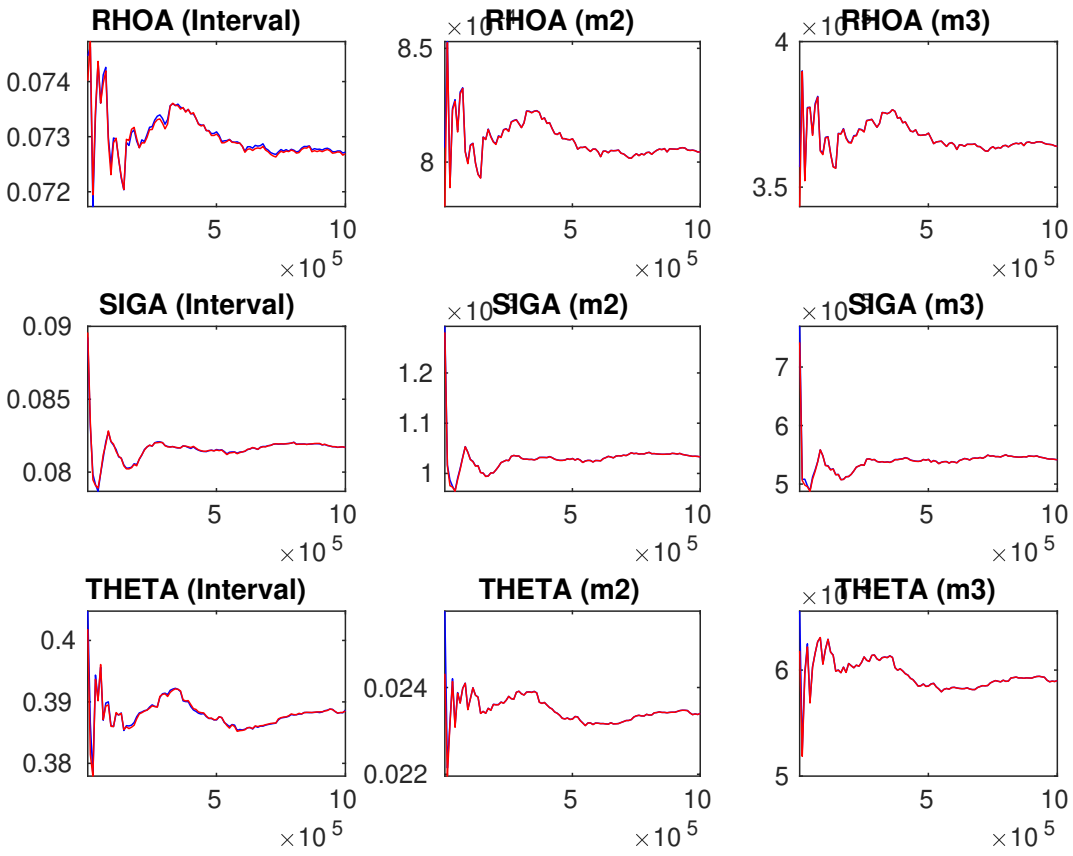

Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

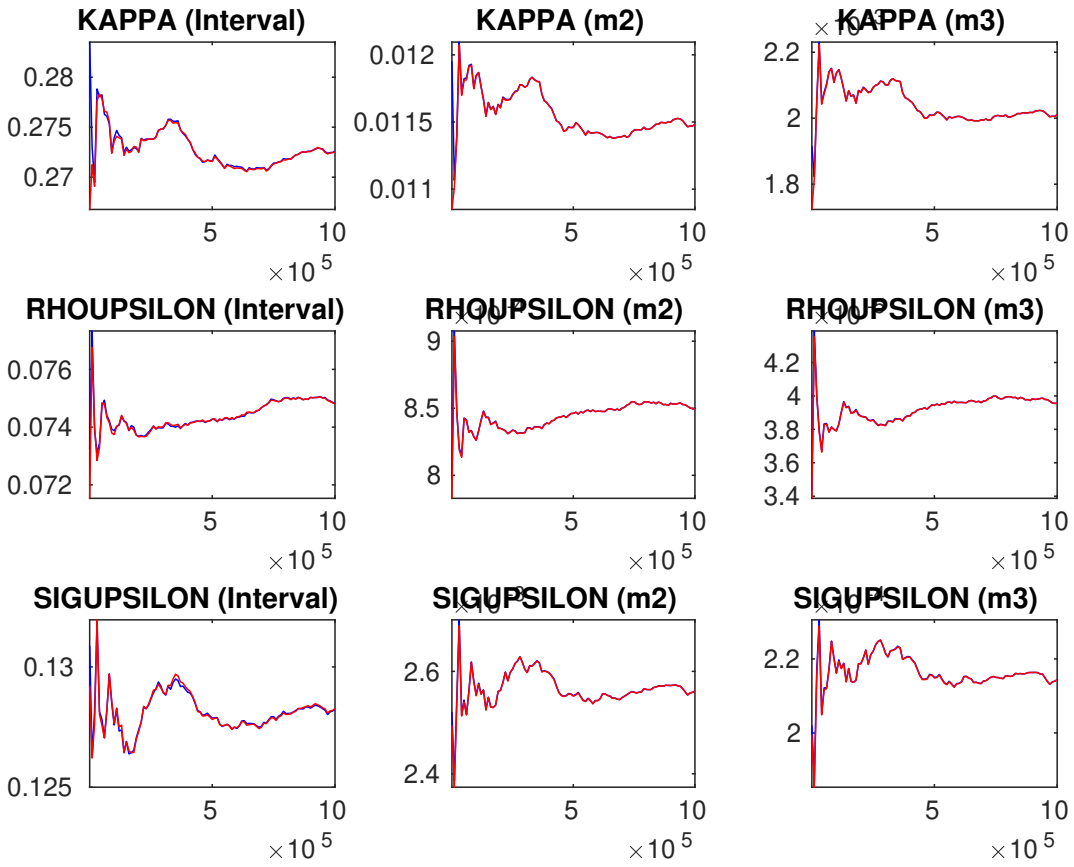

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.