

$n = 50$	MCMC-MLE			MEAN-FIELD			MPLE		
	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$
median	-1.960	1.005	1.569	-1.992	1.000	2.005	-1.956	0.999	1.527
5th pctl	-2.496	0.697	-2.320	-2.056	0.891	1.968	-2.320	0.796	-3.458
25th pctl	-2.141	0.897	0.023	-2.009	0.981	1.997	-2.108	0.912	-0.040
75th pctl	-1.788	1.103	3.142	-1.965	1.020	2.024	-1.798	1.100	2.887
95th pctl	-1.500	1.294	6.227	-1.900	1.066	2.101	-1.513	1.236	4.427
$n = 100$	MCMC-MLE			MEAN-FIELD			MPLE		
	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$
median	-1.985	1.001	1.892	-1.983	1.008	2.015	-1.979	0.998	1.808
0.05	-2.306	0.817	-0.208	-2.021	0.931	1.997	-2.152	0.896	0.153
0.25	-2.099	0.936	1.071	-1.997	0.998	2.004	-2.058	0.955	1.174
0.75	-1.882	1.067	2.741	-1.967	1.021	2.044	-1.909	1.049	2.417
0.95	-1.725	1.186	4.498	-1.918	1.046	2.237	-1.788	1.123	3.125
$n = 200$	MCMC-MLE			MEAN-FIELD			MPLE		
	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$	$\alpha_1$	$\alpha_2$	$\beta$
median	-1.997	1.007	1.988	-1.981	1.002	2.045	-1.981	1.001	1.815
0.05	-2.573	0.834	-2.816	-2.016	0.920	2.003	-2.131	0.945	0.061
0.25	-2.181	0.950	0.409	-1.990	0.977	2.011	-2.044	0.979	1.183
0.75	-1.839	1.062	3.732	-1.963	1.011	2.140	-1.916	1.023	2.413
0.95	-1.555	1.177	7.729	-1.920	1.026	2.583	-1.812	1.057	3.270

Results of 1000 Monte Carlo estimates using the three methods. MCMC-MLE stands for the Monte Carlo Maximum Likelihood estimator of  $\theta$ , implemented in the package `ergm` in R, using the stochastic approximation algorithm developed in . MEAN-FIELD is our method, implemented with an iterative algorithm. MPLE is the Maximum Pseudo-Likelihood Estimate, which assumes independence of the conditional choice probabilities. Each network dataset is generated with a 10 million run of the Metropolis-Hastings sampler of the `ergm` command in R, sampling every 10000 iterations.