

Bayesian estimation for NHPP using rstan

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Table 1: Parameter estimates when N = 5

	mean	sd	2.5%	50%	97.5%
beta	2.703	0.599	1.703	2.668	3.992
theta	8.325	1.228	5.975	8.357	10.642
lp__	-28.349	1.067	-31.129	-27.966	-27.294

Table 2: Parameter estimates when N = 10

	mean	sd	2.5%	50%	97.5%
beta	2.778	0.649	1.724	2.720	4.236
theta	4.198	0.594	2.962	4.217	5.282
lp__	-18.571	1.033	-21.450	-18.263	-17.546

Table 3: Parameter estimates when N = 50

	mean	sd	2.5%	50%	97.5%
beta	1.991	0.219	1.607	1.983	2.398
theta	5.495	0.667	4.240	5.474	6.846
lp__	-92.420	0.980	-94.860	-92.173	-91.422

Table 4: Parameter estimates when N = 100

	mean	sd	2.5%	50%	97.5%
beta	2.103	0.106	1.906	2.099	2.319
theta	5.296	0.286	4.798	5.316	5.896
lp__	-409.260	1.109	-412.175	-408.970	-408.196

Table 5: Parameter estimates when N = 500

	mean	sd	2.5%	50%	97.5%
beta	2.074	0.083	1.916	2.080	2.225
theta	5.076	0.210	4.669	5.078	5.450
lp__	-756.363	1.011	-759.102	-756.064	-755.341

Table 6: Parameter estimates when N = 1000

	mean	sd	2.5%	50%	97.5%
beta	1.978	0.037	1.909	1.977	2.055

	mean	sd	2.5%	50%	97.5%
theta	4.948	0.101	4.754	4.949	5.154
lp___	-3774.525	1.066	-3777.162	-3774.204	-3773.444

	mean	sd	2.5%	50%	97.5%
beta	2.032	0.024	1.984	2.032	2.080
theta	5.066	0.063	4.936	5.066	5.179
lp___	-7357.631	0.896	-7359.840	-7357.375	-7356.686