

POMP results

TODO: Change this table with new MCMC code for POMP MCMC steps = 2000, burnin steps = 100, measurement noise in X_1 and $X_2 = 10^{-2}$

N particles	Min	1st Quad	Median	Mean	3rd Quad	Max	Time	Accept %
10	5.835	6.386	6.386	6.522	6.386	7.550	37.124 + 3.032	0.0025%
50	5.440	5.440	5.811	5.800	6.032	6.955	44.392 + 3.144	0.0045%
100	5.309	5.499	5.617	5.741	5.925	6.785	44.736 + 3.024	0.006 %
200	5.345	5.476	5.971	5.856	6.086	9.950	58.696 + 2.852	0.006%
500	5.366	5.792	5.832	5.961	6.209	7.040	108.572 + 3.504	0.035%

Table 1: POMP table of difference in means

Difference Means	by 20	by 50	by 100	by 200
h by 1	-0.05734111	-0.06312163	0.02901005	-0.2683111
h by 2	-0.05791024	-0.1276239	-0.373554	1.45994
h by 3	-0.06203916	-0.0417083	-0.2357552	-0.1545804
h by 4	-0.08281177	-0.06374529	-0.2214498	-0.4768346
h by 5	-0.0573322	-0.05410928	-0.02877429	-0.1938626
h by 6			-0.06761619	-0.1046286
h by 7			-0.1818962	-0.03347735
h by 8			-0.05246908	-0.2339528
h by 9			-0.2730433	-0.1301727
h by 10			-0.02879612	-0.06420363

Table 2: Rdtq2d - Table of difference in means

Difference Means	by 20	by 50	by 100	by 200
h by 1	0.01799522		0.005835387	0.01591087
h by 2	-0.01703062		-0.0628411	-0.09772604
h by 3	0.01168039		-0.1564589	-0.1512427
h by 4			-0.086696	-0.1503922
h by 5			-0.09061449	-0.166959
h by 6			-0.05866944	-0.1651696
h by 7			-0.05619288	-0.1609761
h by 8			-0.06385678	-0.1642348
h by 9			-0.05940936	
h by 10			-0.09577861	

Table 3: POMP table of difference in modes

Difference Modes	by 20	by 50	by 100	by 200
h by 1	-0.0341092	-0.03675144	0.04459498	-0.2870469
h by 2	-0.04497344	-0.02220465	-0.01485807	2.482868
h by 3	-0.05712774	-0.05975342	-0.03467599	-0.005828138
h by 4	-0.06649671	-0.03845302	-0.03029839	-0.02734288
h by 5	-0.04263887	-0.04431851	-0.06616269	-0.01583606
h by 6			-0.04524299	0.02920972
h by 7			-0.03962572	-0.03218948
h by 8			-0.02710177	-0.01554538
h by 9			-0.04130269	-0.0286791
h by 10			-0.03013301	-0.0237121

Table 4: Rdtq2d - Table of difference in modes

Difference Modes	by 20	by 50	by 100	by 200
h by 1	0.007259653		-0.01422478	0.1906643
h by 2	0.0115566		0.02536292	0.0475644
h by 3	-0.01422478		-0.02010194	0.01216831
h by 4			-0.04844341	-0.03950003
h by 5			-0.05278264	-0.02550886
h by 6			-0.04495679	-0.02835948
h by 7			-0.04133994	-0.01596862
h by 8			-0.04112844	-0.02292278
h by 9			-0.03928337	
h by 10			-0.03531033	

Table 5: POMP table for acceptance ratios

Acceptance Ratio	by 20	by 50	by 100	by 200
by 1	24.4	16.6	1.1	21.5
by 2		19.7	46.6	41.1
by 3		22.8	40	26
by 4		15.5	36.9	55.7
by 5		22.6	25.2	30.9

Table 6: Rdtq2d table for acceptance ratio

Acceptance Ratio	by 20	by 50	by 100	by 200
by 1	28.5	33	37.6	52.9
by 2	29.9	32	36.8	53.1
by 3		32	47	52.5
by 4			37.7	51
by 5			37	50.3

Table 7: POMP table for time elapsed

Elapsed time	by 20	by 50	by 100	by 200
by 1	95.541	42.380	24.946	16.118
by 2		51.438	29.227	18.568
by 3		60.414	33.762	20.685
by 4		69.396	38.322	22.941
by 5		78.251	42.895	25.025

Table 8: Rdtq2d table for time elapsed

Elapsed time	by 20	by 50	by 100	by 200
by 1	0.143	0.151	0.143	0.138
by 2	17.174	1.949	0.571	0.305
by 3		67.011	12.370	3.073
by 4			36.988	8.698
by 5			98.264	17.898