

Supplemental Table S1. Ordered Q matrices.

Matrix 1	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	1	-2	1	0
State 3	0	1	-2	1
State 4	0	0	1	-1

Matrix 2	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	0	-1	1	0
State 3	0	0	-1	1
State 4	0	0	0	0

Matrix 3	State 1	State 2	State 3	State 4
State 1	-2	2	0	0
State 2	1	-4	3	0
State 3	0	2	-3	1
State 4	0	0	3	-3

Matrix 4	State 1	State 2	State 3	State 4
State 1	-2	2	0	0
State 2	0	-3	3	0
State 3	0	0	-1	1
State 4	0	0	0	0

Matrix 5	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	1	-3	2	0
State 3	0	2	-3	1
State 4	0	0	1	-1

Matrix 6	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	0	-2	2	0
State 3	0	0	-1	1
State 4	0	0	0	0

Matrix 7	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	1	-2	1	0
State 3	0	1	-4	3
State 4	0	0	1	-1

Matrix 8	State 1	State 2	State 3	State 4
State 1	-1	1	0	0
State 2	0	-1	1	0
State 3	0	0	-3	3
State 4	0	0	0	0

Supplemental Table S2. Unordered Q matrices

Matrix 1	State 1	State 2	State 3	State 4
State 1	-3	1	1	1
State 2	1	-3	1	1
State 3	1	1	-3	1
State 4	1	1	1	-3

Matrix 2	State 1	State 2	State 3	State 4
State 1	-3	1	1	1
State 2	0	-2	1	1
State 3	0	0	-1	1
State 4	0	0	0	0

Matrix 3	State 1	State 2	State 3	State 4
State 1	-5	2	1	2
State 2	1	-5	3	1
State 3	2	2	-7	3
State 4	1	1	3	-4

Matrix 4	State 1	State 2	State 3	State 4
State 1	-5	2	1	2
State 2	0	-4	3	1
State 3	0	0	-3	3
State 4	0	0	0	0

Matrix 5	State 1	State 2	State 3	State 4
State 1	-6	1	2	3
State 2	1	-5	2	2
State 3	2	2	-5	1
State 4	3	2	1	-6

Matrix 6	State 1	State 2	State 3	State 4
State 1	-6	1	2	3
State 2	0	-4	2	2
State 3	0	0	-1	1
State 4	0	0	0	0

Matrix 7	State 1	State 2	State 3	State 4
State 1	-5	1	1	3
State 2	1	-5	1	3
State 3	1	1	-5	3
State 4	1	1	1	-3

Matrix 8	State 1	State 2	State 3	State 4
State 1	-5	1	1	3
State 2	0	-4	1	3
State 3	0	0	-3	3
State 4	0	0	0	0