Discrete Trait Transition Rates of IAV Proteins
Modelled by rjMCMC Multistate Estimation in BayesTraits

01PB2 — Recip (rows) × Donor (columns)

Recip	A	B	D	E	H	P
P	1.35 ±0.85	0.29 ±0.56	0.43 ±0.67	0.67 ±0.79	1.7 ±0.78	
H	1.61 ±0.87	0.69 ±0.83	0.79 ±0.92	0.78 ±0.91		14.01 ±3.65
E	3.79 ±5.64	5.01 ±6.24	7.73 ±6.98		3.72 ±5.37	4.05 ±5.8
D	3.7 ±5.48	4.36 ±5.97		8.08 ±6.95	3.85 ±5.57	3.46 ±5.36
B	1.04 ±1.74		1.31 ±2.71	1.58 ±3.17	1.12 ±2.05	1.12 ±2
A		0.72 ±0.99	1.84 ±1.81	1.19 ±1.52	1.44 ±1.71	14.02 ±3.63

02PB1

Recip	A	B	D	E	H	P
P	3.34 ±1.2	0.55 ±1	0.51 ±0.98	0.41 ±0.85	3.4 ±1.32	
H	2.46 ±1.56	1.69 ±1.6	1.89 ±1.61	1.59 ±1.52		40.38 ±8.67
E	2.79 ±1.96	2.37 ±4.96	3.66 ±4.81		1.57 ±1.62	1.61 ±2.42
D	8.99 ±15.34	9.43 ±15.46		10.13 ±15.7	10.73 ±17.33	6.52 ±12.95
B	2.14 ±4.9		3.21 ±8.24	3.72 ±8.4	1.96 ±4.09	1.97 ±4.48
A		0.21 ±0.67	1.09 ±1.27	0.18 ±0.55	2.28 ±1.39	3.24 ±1.25

03PA

Recip	A	B	D	E	H	P
P	3.72 ±0.86	0.12 ±0.34	0.09 ±0.32	0.09 ±0.27	3.73 ±0.87	
H	1.63 ±1.7	1.18 ±1.59	3.13 ±1.35	0.92 ±1.42		28.7 ±7.42
E	2.77 ±5.31	2.95 ±5.34	7.94 ±10.19		3.4 ±6.4	7.7 ±9.91
D	9.37 ±12.32	6.09 ±9.26		12.22 ±13.89	10.77 ±13.5	6.39 ±10.91
B	1.57 ±2.57		1.71 ±3.51	1.77 ±3.63	1.21 ±2.04	1.26 ±1.99
A		0.06 ±0.16	2.01 ±1.56	0.69 ±1.14	0.21 ±0.52	3.72 ±0.86

04HA

Recip	A	B	D	E	H	P
P	0.3 ±0.28	0.03 ±0.06	0.04 ±0.08	0.03 ±0.07	0.75 ±0.21	
H	0.59 ±0.34	0.19 ±0.26	0.48 ±0.35	0.18 ±0.28		15.85 ±2.94
E	0.93 ±3.12	0.71 ±2.25	7.84 ±7.81		1.58 ±4.26	3 ±5.7
D	4.16 ±6.79	4.55 ±7.04		6.45 ±7.87	4.06 ±6.88	6.96 ±7.89
B	0.27 ±0.82		0.44 ±2.1	0.3 ±1.2	0.26 ±1.02	0.29 ±1.32
A		0.03 ±0.04	0.03 ±0.08	0.13 ±0.16	0.1 ±0.14	0.76 ±0.2

05NP

Recip	A	B	D	E	H	P
P	6.48 ±1.39				6.6 ±1.7	
H	0.05 ±0.15					6.49 ±1.37
E						
D						
B						
A					0.29 ±0.24	0.61 ±0.34

06NA

Recip	A	B	D	E	H	P
P	0.77 ±0.27	0.18 ±0.3	0.16 ±0.3	0.08 ±0.22	0.77 ±0.27	
H	0.35 ±0.4	0.42 ±0.42	0.35 ±0.39	0.37 ±0.4		16.72 ±4.64
E	2.77 ±5.55	2.51 ±5.25	2.92 ±5.97		1.23 ±3.61	0.84 ±2.61
D	9.55 ±8.88	5.02 ±7.63		12.76 ±7.79	8.06 ±8.58	3.55 ±6.55
B	1.34 ±3.91		1.06 ±3.33	1.65 ±4.56	0.51 ±1.9	0.66 ±2.56
A		0.02 ±0.12	0.62 ±0.35	0.14 ±0.28	0.05 ±0.15	0.77 ±0.27

07M1

Recip	A	B	D	E	H	P
P	12.07 ±4.62	0.22 ±0.48	0.19 ±0.51	0.26 ±0.67	12.68 ±4.12	
H	11.5 ±4.94	0.29 ±0.81	0.71 ±2.24	0.44 ±1.57		13.54 ±3.91
E	8.41 ±7.15	6.12 ±6.98	6.07 ±7.13		6.44 ±7.17	6.78 ±6.86
D	8.96 ±6.78	6.5 ±7.05		5.89 ±7.05	5.47 ±6.66	6.04 ±6.55
B	6.56 ±7.03		6.77 ±7.04	5.71 ±6.85	5.95 ±7.04	6.37 ±7.1
A		0.28 ±0.81	0.35 ±0.79	0.41 ±0.79	0.53 ±1.59	12.93 ±3.76

08NS1

Recip	A	B	D	E	H	P
P	0.47 ±0.1	0.01 ±0.04	0 ±0.01	0.01 ±0.04	0.47 ±0.1	
H	0.46 ±0.1	0.33 ±0.22	0.26 ±0.24	0.25 ±0.24		9.92 ±2.07
E	1.19 ±2.85	1.36 ±2.99	7.01 ±4.7		0.84 ±2.28	1.24 ±2.91
D	0.31 ±0.5	0.45 ±1.29		1.36 ±2.88	0.28 ±0.52	0.28 ±0.67
B	0.77 ±2.32		0.93 ±2.52	1.1 ±2.71	0.45 ±1.46	0.66 ±2
A		0.03 ±0.12	0.12 ±0.2	0.29 ±0.22	0.45 ±0.1	0.47 ±0.1

Recip (y-axis) · Donor (x-axis)