

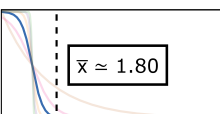
$\epsilon = 10^{-2}$		Sampling step ( $\delta$ )						
Transition curve	Metric	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$
Fermi (b = 0.05) 	Nb. points	12	111	1101	10999	109980	1099783	10997819
	Mem. (MB)	0.0001	0.0009	0.0088	0.0880	0.8798	8.7983	87.9826
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0007	0.0073	0.0701	0.7087
Fermi (b = 0.1) 	Nb. points	13	121	1201	11997	119958	1199565	11995637
	Mem. (MB)	0.0001	0.0010	0.0096	0.0960	0.9597	9.5965	95.9651
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0008	0.0076	0.0741	0.7418
Fermi (b = 0.2) 	Nb. points	15	141	1401	13993	139914	1399129	13991272
	Mem. (MB)	0.0001	0.0011	0.0112	0.1119	1.1193	11.1930	111.9302
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0009	0.0089	0.0888	0.9027
Fermi (b = 0.4) 	Nb. points	19	181	1800	17984	179827	1798256	17982542
	Mem. (MB)	0.0002	0.0014	0.0144	0.1439	1.4386	14.3860	143.8603
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0012	0.0116	0.1139	1.1533
Fermi (b = 0.8) 	Nb. points	27	261	2598	25967	259652	2596510	25965083
	Mem. (MB)	0.0002	0.0021	0.0208	0.2077	2.0772	20.7721	207.7207
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0002	0.0017	0.0169	0.1648	1.6573
Exponential 	Nb. points	68	666	6645	66440	664387	6643858	66438563
	Mem. (MB)	0.0005	0.0053	0.0532	0.5315	5.3151	53.1509	531.5085
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0004	0.0043	0.0409	0.4235	4.2287

Table 1: Statistics on the pre-processing phase of the QADP method to create the look-up table on reference transition curves, here with threshold  $\epsilon = 10^{-2}$ . Avg. CPU<sub>t</sub> denotes the average required execution time (in seconds, over 100 runs), and Mem. the amount of memory required (in megabytes) with 64-bit floating-point encoding for probabilities. The green zone represents a sweet spot for the discretization step with a compromise between speed of execution, memory requirements and precision.

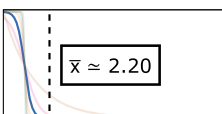
$\epsilon = 10^{-3}$		Sampling step ( $\delta$ )						
Transition curve	Metric	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$
Fermi (b = 0.05) 	Nb. points	13	116	1151	11501	114999	1149980	11499784
	Mem. (MB)	0.0001	0.0009	0.0092	0.0920	0.9200	9.1998	91.9983
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0008	0.0075	0.0734	0.7384
Fermi (b = 0.1) 	Nb. points	14	131	1301	13001	129997	1299958	12999567
	Mem. (MB)	0.0001	0.0010	0.0104	0.1040	1.0400	10.3997	103.9965
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0008	0.0082	0.0797	0.8219
Fermi (b = 0.2) 	Nb. points	17	161	1601	16001	159993	1599915	15999132
	Mem. (MB)	0.0001	0.0013	0.0128	0.1280	1.2799	12.7993	127.9931
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0010	0.0099	0.0971	1.0209
Fermi (b = 0.4) 	Nb. points	23	221	2201	22000	219984	2199828	21998263
	Mem. (MB)	0.0002	0.0018	0.0176	0.1760	1.7599	17.5986	175.9861
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0014	0.0141	0.1378	1.4112
Fermi (b = 0.8) 	Nb. points	35	341	3401	33998	339967	3399654	33996525
	Mem. (MB)	0.0003	0.0027	0.0272	0.2720	2.7197	27.1972	271.9722
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0002	0.0023	0.0223	0.2139	2.1479
Exponential 	Nb. points	101	998	9967	99659	996580	9965786	99657844
	Mem. (MB)	0.0008	0.0080	0.0797	0.7973	7.9726	79.7263	797.2628
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0001	0.0006	0.0065	0.0625	0.6366	6.3316

Table 2: Statistics on the pre-processing phase of the QADP method to create the look-up table on reference transition curves, here with threshold  $\epsilon = 10^{-3}$ . Avg. CPU<sub>t</sub> denotes the average required execution time (in seconds, over 100 runs), and Mem. the amount of memory required (in megabytes) with 64-bit floating-point encoding for probabilities. The green zone represents a sweet spot for the discretization step with a compromise between speed of execution, memory requirements and precision.

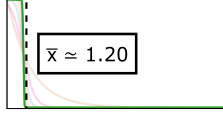
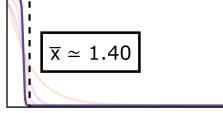
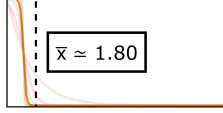
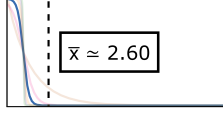
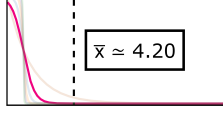
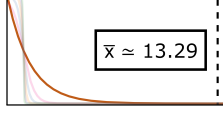
$\epsilon = 10^{-4}$		Sampling step ( $\delta$ )						
Transition curve	Metric	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$
Fermi (b = 0.05) 	Nb. points	13	121	1201	12001	120001	1199999	11999980
	Mem. (MB)	0.0001	0.0010	0.0096	0.0960	0.9600	9.6000	95.9998
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0008	0.0077	0.0772	0.7627
Fermi (b = 0.1) 	Nb. points	15	141	1401	14001	140001	1399997	13999958
	Mem. (MB)	0.0001	0.0011	0.0112	0.1120	1.1200	11.2000	111.9997
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0009	0.0093	0.0897	0.9041
Fermi (b = 0.2) 	Nb. points	19	181	1801	18001	180001	1799993	17999915
	Mem. (MB)	0.0002	0.0014	0.0144	0.1440	1.4400	14.3999	143.9993
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0011	0.0114	0.1149	1.1500
Fermi (b = 0.4) 	Nb. points	27	261	2601	26001	260000	2599984	25999828
	Mem. (MB)	0.0002	0.0021	0.0208	0.2080	2.0800	20.7999	207.9986
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0002	0.0016	0.0164	0.1643	1.6617
Fermi (b = 0.8) 	Nb. points	43	421	4201	42001	419998	4199967	41999654
	Mem. (MB)	0.0003	0.0034	0.0336	0.3360	3.3600	33.5997	335.9972
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0003	0.0026	0.0272	0.2641	2.7140
Exponential 	Nb. points	134	1330	13289	132879	1328773	13287714	132877125
	Mem. (MB)	0.0011	0.0106	0.1063	1.0630	10.6302	106.3017	1063.0170
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0001	0.0009	0.0088	0.0846	0.8550	8.5207

Table 3: Statistics on the pre-processing phase of the QADP method to create the look-up table on reference transition curves, here with threshold  $\epsilon = 10^{-4}$ . Avg. CPU<sub>t</sub> denotes the average required execution time (in seconds, over 100 runs), and Mem. the amount of memory required (in megabytes) with 64-bit floating-point encoding for probabilities. The green zone represents a sweet spot for the discretization step with a compromise between speed of execution, memory requirements and precision.

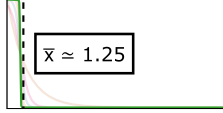
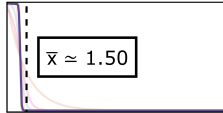
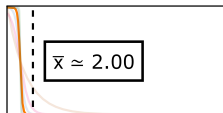
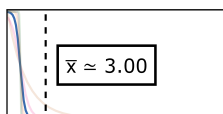
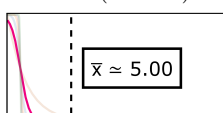
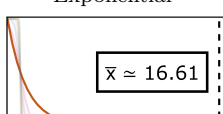
$\epsilon = 10^{-5}$		Sampling step ( $\delta$ )						
Transition curve	Metric	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$
Fermi (b = 0.05) 	Nb. points	14	126	1251	12501	125001	1250001	12499999
	Mem. (MB)	0.0001	0.0010	0.0100	0.1000	1.0000	10.0000	100.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0008	0.0081	0.0804	0.7959
Fermi (b = 0.1) 	Nb. points	16	151	1501	15001	150001	1500001	14999997
	Mem. (MB)	0.0001	0.0012	0.0120	0.1200	1.2000	12.0000	120.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0009	0.0098	0.0953	0.9545
Fermi (b = 0.2) 	Nb. points	21	201	2001	20001	200001	2000001	19999993
	Mem. (MB)	0.0002	0.0016	0.0160	0.1600	1.6000	16.0000	159.9999
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0013	0.0133	0.1283	1.2744
Fermi (b = 0.4) 	Nb. points	31	301	3001	30001	300001	3000000	29999984
	Mem. (MB)	0.0002	0.0024	0.0240	0.2400	2.4000	24.0000	239.9999
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0002	0.0019	0.0189	0.1901	1.9179
Fermi (b = 0.8) 	Nb. points	51	501	5001	50001	500001	4999998	49999967
	Mem. (MB)	0.0004	0.0040	0.0400	0.4000	4.0000	40.0000	399.9997
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0003	0.0033	0.0317	0.3182	3.1917
Exponential 	Nb. points	168	1662	16611	166098	1660966	16609642	166096406
	Mem. (MB)	0.0013	0.0133	0.1329	1.3288	13.2877	132.8771	1328.7712
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0001	0.0011	0.0111	0.1064	1.0712	10.6484

Table 4: Statistics on the pre-processing phase of the QADP method to create the look-up table on reference transition curves, here with threshold  $\epsilon = 10^{-5}$ . Avg. CPU<sub>t</sub> denotes the average required execution time (in seconds, over 100 runs), and Mem. the amount of memory required (in megabytes) with 64-bit floating-point encoding for probabilities. The green zone represents a sweet spot for the discretization step with a compromise between speed of execution, memory requirements and precision.

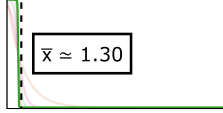
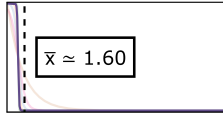
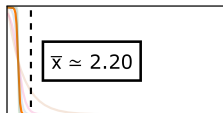
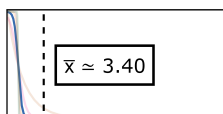
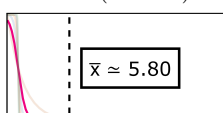
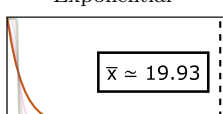
$\epsilon = 10^{-6}$		Sampling step ( $\delta$ )						
Transition curve	Metric	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-4}$	$10^{-5}$	$10^{-6}$	$10^{-7}$
Fermi (b = 0.05) 	Nb. points	14	131	1301	13001	130001	1300001	13000001
	Mem. (MB)	0.0001	0.0010	0.0104	0.1040	1.0400	10.4000	104.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0009	0.0082	0.0849	0.8411
Fermi (b = 0.1) 	Nb. points	17	161	1601	16001	160001	1600001	16000001
	Mem. (MB)	0.0001	0.0013	0.0128	0.1280	1.2800	12.8000	128.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0010	0.0101	0.0999	1.0204
Fermi (b = 0.2) 	Nb. points	23	221	2201	22001	220001	2200001	22000001
	Mem. (MB)	0.0002	0.0018	0.0176	0.1760	1.7600	17.6000	176.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0001	0.0014	0.0137	0.1386	1.4133
Fermi (b = 0.4) 	Nb. points	35	341	3401	34001	340001	3400001	34000000
	Mem. (MB)	0.0003	0.0027	0.0272	0.2720	2.7200	27.2000	272.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0002	0.0022	0.0223	0.2153	2.1964
Fermi (b = 0.8) 	Nb. points	59	581	5801	58001	580001	5800001	57999998
	Mem. (MB)	0.0005	0.0046	0.0464	0.4640	4.6400	46.4000	464.0000
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0000	0.0004	0.0038	0.0375	0.3721	3.7330
Exponential 	Nb. points	201	1995	19933	199317	1993158	19931570	199315687
	Mem. (MB)	0.0016	0.0160	0.1595	1.5945	15.9453	159.4526	1594.5255
	Avg. CPU <sub>t</sub> (s)	0.0000	0.0001	0.0013	0.0132	0.1265	1.2808	12.8425

Table 5: Statistics on the pre-processing phase of the QADP method to create the look-up table on reference transition curves, here with threshold  $\epsilon = 10^{-6}$ . Avg. CPU<sub>t</sub> denotes the average required execution time (in seconds, over 100 runs), and Mem. the amount of memory required (in megabytes) with 64-bit floating-point encoding for probabilities. The green zone represents a sweet spot for the discretization step with a compromise between speed of execution, memory requirements and precision.