

Assignment 2

PH21B011

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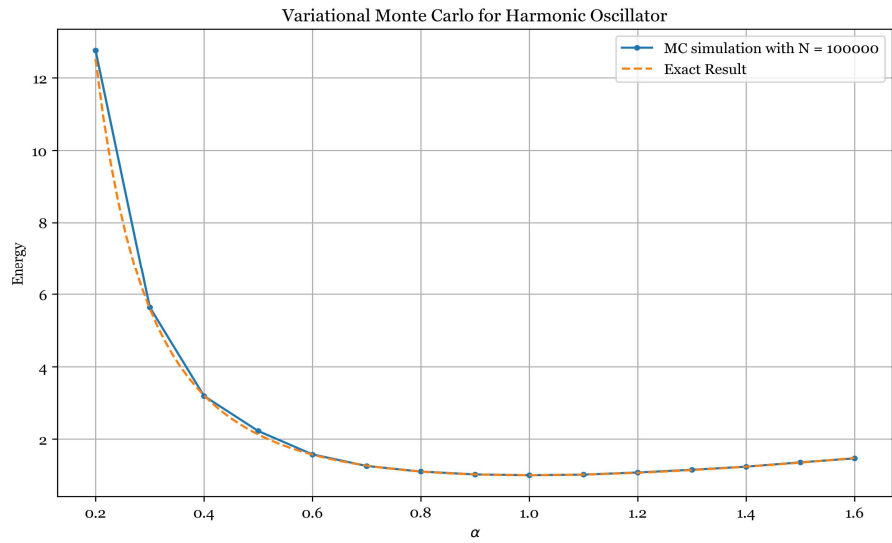


Table 1: vMC for Harmonic Oscillator

α	Mean Energy(E)	Variance(E)
0.200	12.756	302.457
0.300	5.638	62.904
0.400	3.189	18.298
0.500	2.221	8.006
0.600	1.575	3.085
0.700	1.255	1.176
0.800	1.101	0.435
0.900	1.021	0.091
1.000	1.000	0.000
1.100	1.016	0.076
1.200	1.075	0.261
1.300	1.150	0.605
1.400	1.235	1.068
1.500	1.355	1.585
1.600	1.464	2.385

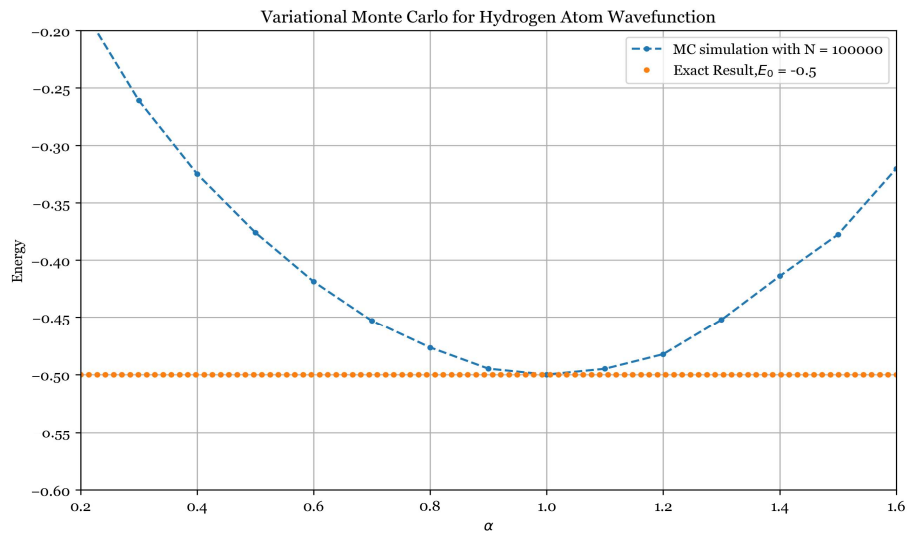


Table 2: vMC for Hydrogen Atom

α	Mean Energy(E)	Variance(E)
0.200	-0.177	0.022
0.300	-0.254	0.037
0.400	-0.319	0.057
0.500	-0.371	0.052
0.600	-0.420	0.049
0.700	-0.452	0.038
0.800	-0.482	0.024
0.900	-0.495	0.009
1.000	-0.500	0.000
1.100	-0.495	0.011
1.200	-0.482	0.063
1.300	-0.452	0.148
1.400	-0.420	0.306
1.500	-0.378	0.469
1.600	-0.331	0.701