Table 1: Performance Results for Griewank$\backslash_2 D Problem$

Optimizer	Mean Final Value	Std Dev	Best Value	Worst Value	Mean Func Evals	Success Rate (%)	Mean Time (s)
QQN-CubicQuadraticInterpolation	4.47	7.53×10^{-1}	1.80	5.30	178.1	0.0	0.005
QQN-StrongWolfe	4.73	4.04×10^{-1}	3.48	4.91	286.9	0.0	0.009
QQN-Backtracking	4.75	4.12×10^{-1}	3.26	4.91	313.9	0.0	0.011
QQN-Bisection-2	4.80	1.68×10^{-1}	4.54	4.91	87.9	0.0	0.001
QQN-Bisection-1	4.91	8.23×10^{-14}	4.91	4.91	77.5	0.0	0.002
QQN-MoreThuente	4.91	1.12×10^{-13}	4.91	4.91	78.0	0.0	0.001
L-BFGS-Conservative	4.91	3.59×10^{-9}	4.91	4.91	503.2	0.0	0.012
QQN-GoldenSection	4.91	1.80×10^{-7}	4.91	4.91	259.6	0.0	0.004
L-BFGS	4.91	2.66×10^{-7}	4.91	4.91	226.9	0.0	0.005
GD-Nesterov	4.91	1.66×10^{-4}	4.91	4.91	132.1	0.0	0.004
GD-WeightDecay	4.91	7.02×10^{-5}	4.91	4.91	335.0	0.0	0.010
GD-Momentum	4.91	4.37×10^{-4}	4.91	4.91	106.2	0.0	0.003
L-BFGS-Aggressive	4.91	4.68×10^{-3}	4.91	4.94	510.9	0.0	0.011
Trust Region-Conservative	4.92	1.58×10^{-3}	4.91	4.92	344.1	0.0	0.002
Adam-Fast	4.93	6.53×10^{-3}	4.92	4.94	67.9	0.0	0.001
GD	5.01	2.69×10^{-2}	4.98	5.07	335.0	0.0	0.008
Trust Region-Adaptive	5.14	1.65×10^{-1}	5.00	5.61	16.2	0.0	0.000
Adam-WeightDecay	5.58	9.25×10^{-2}	5.44	5.77	502.0	0.0	0.010
Adam-AMSGrad	5.85	8.74×10^{-2}	5.72	5.99	502.0	0.0	0.011
Adam	5.88	6.97×10^{-2}	5.74	5.98	502.0	0.0	0.010
Trust Region-Standard	6.00	6.90×10^{-2}	5.90	6.12	5.0	0.0	0.000