Table 1: Performance Results for Griewank_5D Problem

Optimizer	Mean Final Value	Std Dev	Best Value	Worst Value	Mean Func Evals	Success Rate (%)	Mean Time (s)
QQN-StrongWolfe	1.09e1	2.09e0	5.74e0	1.33e1	1535.0	0.0	0.071
Adam-Robust	1.29e1	6.91e-2	1.28e1	1.30e1	2502.0	0.0	0.059
Adam-AMSGrad	1.25e1	2.91e-2	1.25e1	1.26e1	2502.0	0.0	0.059
Adam	1.25e1	2.35e-2	1.25e1	1.25e1	2502.0	0.0	0.052
GD	1.22e1	1.06e-3	1.22e1	1.22e1	1668.0	0.0	0.044
Adam-WeightDecay	1.23e1	6.65e-3	1.23e1	1.23e1	1651.7	0.0	0.037
GD-WeightDecay	1.22e1	1.86e-5	1.22e1	1.22e1	915.3	0.0	0.030
QQN-Bisection-2	1.21e1	5.61e-1	9.76e0	1.22e1	984.9	0.0	0.025
QQN-GoldenSection	1.12e1	3.02e0	1.62e0	1.22e1	1154.2	0.0	0.023
QQN-Bisection-1	1.06e1	3.32e0	2.18e0	1.22e1	872.0	0.0	0.020
L-BFGS-Conservative	1.22e1	5.00e-9	1.22e1	1.22e1	705.6	0.0	0.019
L-BFGS-Limited	1.22e1	6.36e-8	1.22e1	1.22e1	632.5	0.0	0.015
L-BFGS-Aggressive	1.09e1	2.56e0	5.15e0	1.22e1	1097.7	0.0	0.015
GD-Nesterov	1.22e1	3.21e-9	1.22e1	1.22e1	394.2	0.0	0.013
GD-Momentum	1.22e1	2.51e-9	1.22e1	1.22e1	387.2	0.0	0.012
L-BFGS	1.22e1	4.05e-3	1.22e1	1.23e1	259.7	0.0	0.006
GD-AdaptiveMomentum	1.23e1	3.47e-2	1.22e1	1.23e1	133.1	0.0	0.005
QQN-CubicQuadraticInterpolation	1.28e1	2.58e-1	1.22e1	1.32e1	115.1	0.0	0.004
Trust Region-Conservative	1.23e1	2.20e-3	1.23e1	1.23e1	380.4	0.0	0.003
L-BFGS-MoreThuente	1.22e1	2.35e-7	1.22e1	1.22e1	118.5	0.0	0.003
Adam-Fast	1.23e1	1.71e-2	1.22e1	1.23e1	67.1	0.0	0.001
Trust Region-Precise	1.34e1	3.58e-1	1.23e1	1.36e1	11.4	0.0	0.000
Trust Region-Adaptive	1.35e1	3.00e-2	1.34e1	1.35e1	5.0	0.0	0.000
Trust Region-Standard	1.35e1	2.54e-2	1.34e1	1.36e1	5.0	0.0	0.000
Trust Region-Aggressive	1.35e1	2.50e-2	1.35e1	1.35e1	5.0	0.0	0.000