Table 1: Performance Results for Schwefel_5D Problem

Optimizer	Mean Final Value	Std Dev	Best Value	Worst Value	Mean Func Evals	Success Rate (%)	Mean Time (s)
L-BFGS-Conservative	1.78e3	1.53e-7	1.78e3	1.78e3	2163.4	0.0	0.061
Adam-Robust	2.34e3	1.19e0	2.34e3	2.34e3	2502.0	0.0	0.059
Adam-AMSGrad	2.34e3	1.27e0	2.34e3	2.34e3	2502.0	0.0	0.059
Adam-WeightDecay	2.28e3	1.09e0	2.27e3	2.28e3	2502.0	0.0	0.056
Adam	2.34e3	1.25e0	2.33e3	2.34e3	2502.0	0.0	0.052
GD	1.78e3	1.99e-3	1.78e3	1.78e3	1668.0	0.0	0.044
Adam-Fast	1.78e3	1.99e-7	1.78e3	1.78e3	1907.4	0.0	0.039
GD-WeightDecay	1.78e3	4.13e-8	1.78e3	1.78e3	1124.1	0.0	0.036
Trust Region-Conservative	2.36e3	1.17e0	2.35e3	2.36e3	3002.0	0.0	0.020
Trust Region-Precise	2.30e3	1.15e0	2.30e3	2.31e3	3002.0	0.0	0.020
Trust Region-Adaptive	2.12e3	1.37e0	2.11e3	2.12e3	3002.0	0.0	0.020
L-BFGS-Limited	1.79e3	5.71e1	1.78e3	2.04e3	661.0	0.0	0.020
QQN-StrongWolfe	-1.74e3	7.34e3	-3.30e4	1.48e3	349.1	50.0	0.015
Trust Region-Standard	1.78e3	2.49e-1	1.78e3	1.78e3	1774.8	0.0	0.012
GD-Nesterov	1.78e3	2.86e-7	1.78e3	1.78e3	339.1	0.0	0.011
GD-Momentum	1.78e3	2.50e-7	1.78e3	1.78e3	323.9	0.0	0.010
L-BFGS	1.78e3	5.48e-4	1.78e3	1.78e3	325.7	0.0	0.008
GD-AdaptiveMomentum	1.78e3	1.03e-1	1.78e3	1.78e3	124.3	0.0	0.004
L-BFGS-MoreThuente	1.78e3	9.47e-6	1.78e3	1.78e3	158.2	0.0	0.004
Trust Region-Aggressive	1.78e3	9.61e-1	1.78e3	1.78e3	446.0	0.0	0.003
QQN-GoldenSection	1.78e3	4.96e-13	1.78e3	1.78e3	149.4	0.0	0.002
L-BFGS-Aggressive	1.78e3	4.59e-2	1.78e3	1.78e3	101.0	0.0	0.001
QQN-CubicQuadraticInterpolation	1.78e3	4.55e-13	1.78e3	1.78e3	57.3	0.0	0.001
QQN-Bisection-1	1.78e3	4.55e-13	1.78e3	1.78e3	52.0	0.0	0.001
QQN-Bisection-2	1.78e3	4.69e-13	1.78e3	1.78e3	52.0	0.0	0.001