Table 1: Performance Results for IllConditionedRosenbrock_10D_alpha100 Problem

Optimizer	Mean Final Value	Std Dev	Best Value	Worst Value	Mean Func Evals	Success Rate (%)	Mean Time (s)
QQN-GoldenSection	4.56e0	1.82e0	4.63e-1	6.66e0	4477.5	0.0	0.086
QQN-CubicQuadraticInterpolation	6.00e-1	1.52e0	1.13e-7	4.99e0	1666.2	75.0	0.073
Adam-Robust	3.49e1	9.88e0	1.61e1	5.15e1	2502.0	0.0	0.061
Adam-AMSGrad	9.31e0	3.61e-1	8.08e0	9.69e0	2490.9	0.0	0.061
QQN-StrongWolfe	5.85e-1	1.24e0	9.35e-8	4.79e0	1847.0	70.0	0.059
Adam	9.11e0	4.86e-1	7.98e0	9.93e0	2475.8	0.0	0.054
L-BFGS-MoreThuente	3.41e0	3.98e0	3.35e-5	1.75e1	2853.3	0.0	0.053
QQN-Bisection-1	1.22e0	2.80e0	1.19e-7	9.52e0	1844.9	65.0	0.052
GD-Nesterov	1.17e0	1.66e-2	1.12e0	1.19e0	1514.9	0.0	0.051
L-BFGS-Aggressive	1.64e2	3.20e2	5.82e1	1.56e3	3850.3	0.0	0.051
L-BFGS-Limited	3.86e0	5.50e-1	2.71e0	5.45e0	4036.8	0.0	0.048
Adam-WeightDecay	2.38e0	4.13e0	6.46e-6	9.61e0	2074.9	0.0	0.048
QQN-Bisection-2	4.40e0	1.40e0	1.07e-7	5.50e0	1646.8	5.0	0.042
GD-WeightDecay	1.34e0	1.81e0	1.70e-1	5.25e0	1217.3	0.0	0.042
L-BFGS-Conservative	1.90e4	6.07e4	1.03e0	2.56e5	3278.5	0.0	0.038
Trust Region-Precise	2.10e3	1.92e2	1.66e3	2.46e3	3002.0	0.0	0.021
Trust Region-Standard	1.06e3	2.06e2	6.70e2	1.41e3	3002.0	0.0	0.021
Trust Region-Conservative	2.16e3	2.33e2	1.76e3	2.55e3	3002.0	0.0	0.020
Trust Region-Adaptive	2.02e3	2.22e2	1.64e3	2.59e3	3002.0	0.0	0.020
GD-Momentum	3.04e1	3.31e1	5.05e-1	7.27e1	517.6	0.0	0.016
Trust Region-Aggressive	6.55e1	2.02e2	9.60e0	9.28e2	1618.0	0.0	0.011
L-BFGS	1.19e2	1.68e2	2.51e1	7.37e2	338.9	0.0	0.005
Adam-Fast	1.53e1	1.47e1	1.91e-1	3.68e1	149.2	0.0	0.003
GD	9.96e0	2.61e-1	9.64e0	1.05e1	46.6	0.0	0.001
GD-AdaptiveMomentum	1.02e2	9.83e0	8.45e1	1.16e2	23.1	0.0	0.001