Table 1: Optimizer Family Comparison Matrix

QQN Family	Adam	GD	L-BFGS	Trust Region
QQN	47W-3L-9T	50W-0L-9T	38W-2L-19T	50W-0L-9T

Legend: W = Wins (statistically significant better performance), L = Losses (statistically significant worse performance), T = Ties (no significant difference). Green indicates QQN family dominance, red indicates non-QQN family dominance.