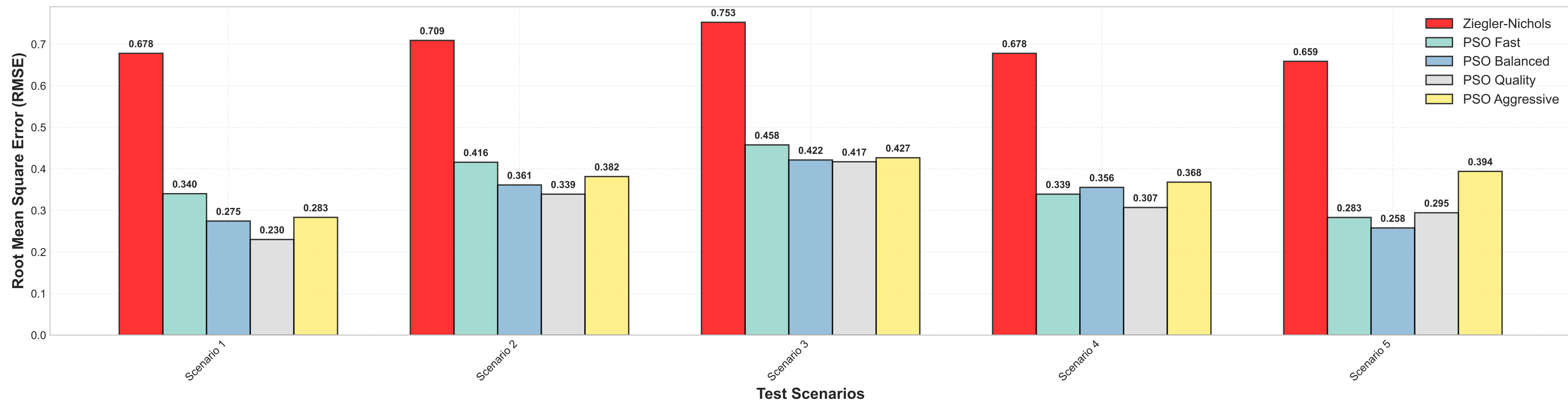
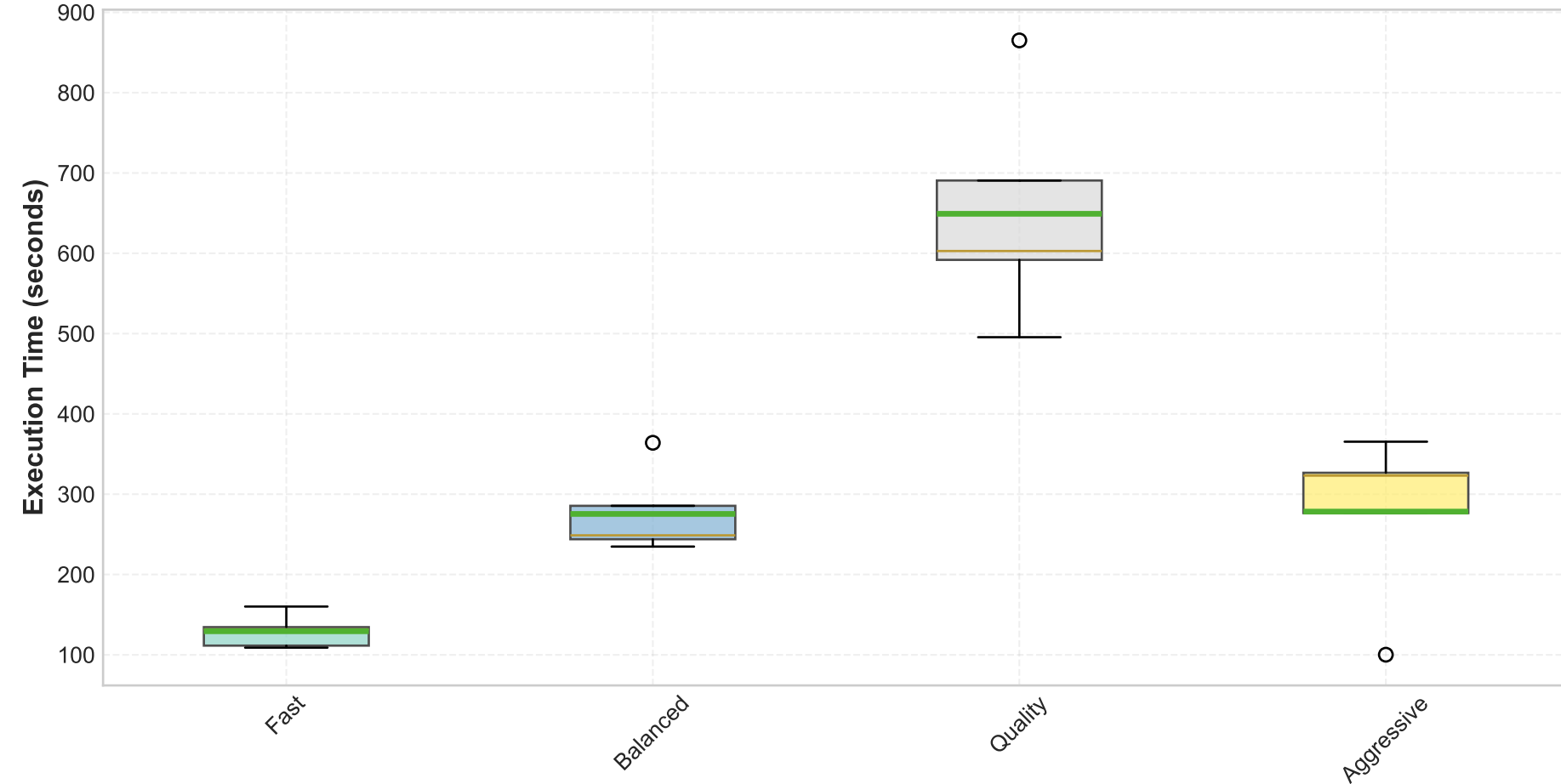


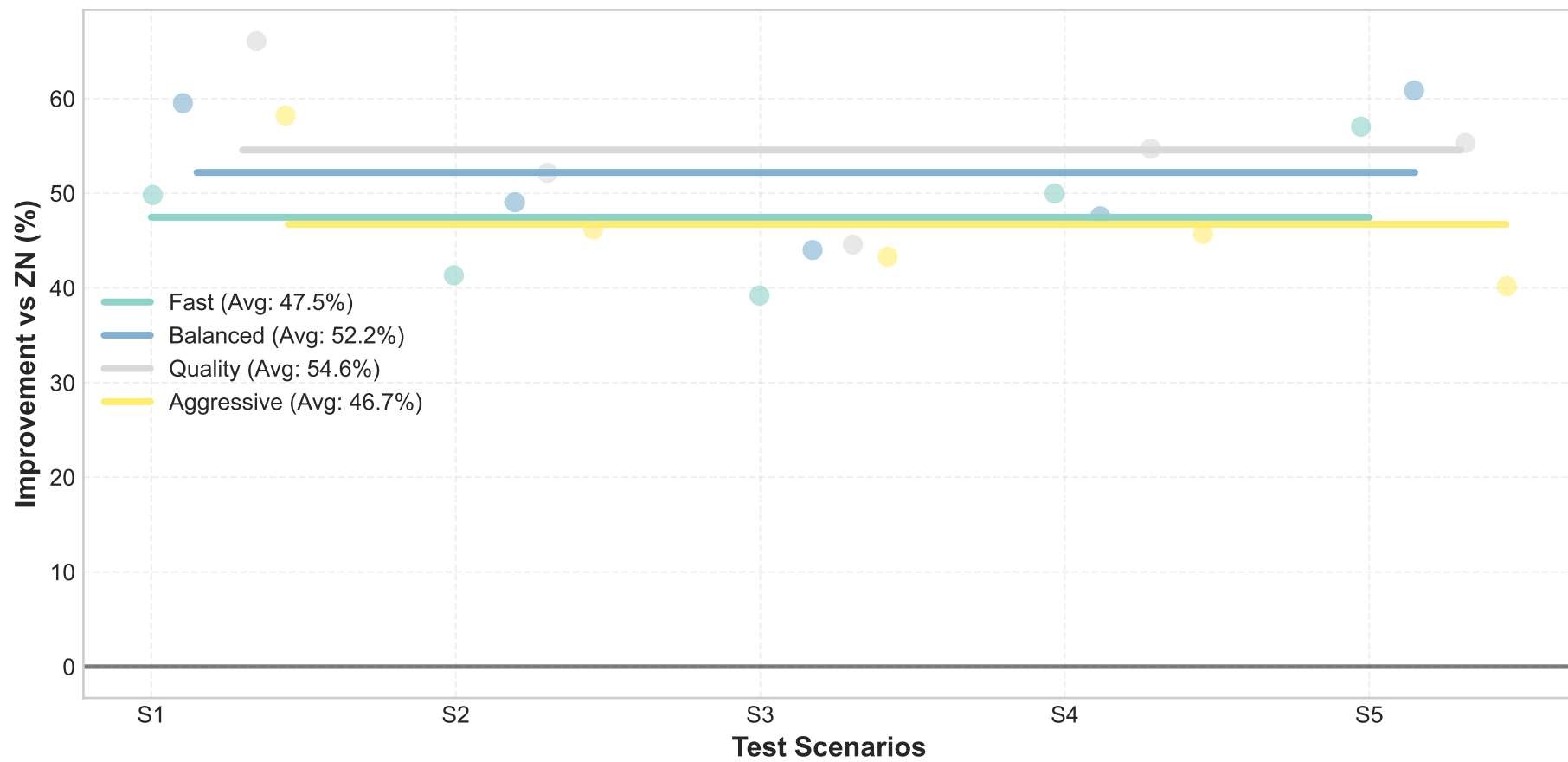
COMPARISON OF CONTROL PERFORMANCE: ZN vs PSO CONFIGURATIONS



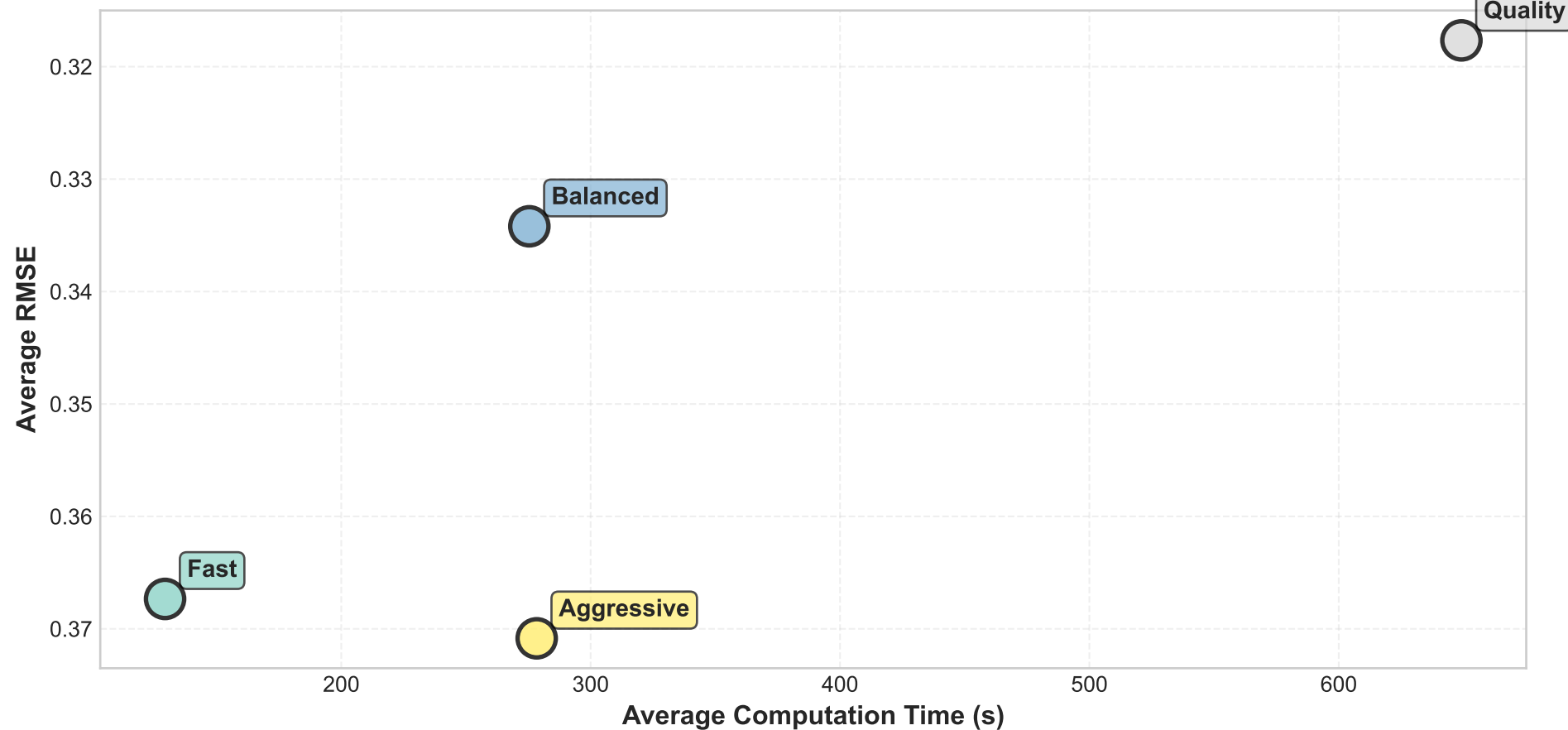
COMPUTATIONAL TIME DISTRIBUTION BY CONFIGURATION



PERFORMANCE IMPROVEMENT OVER ZIEGLER-NICHOLS METHOD



COMPUTATIONAL EFFICIENCY: RMSE vs EXECUTION TIME



CONVERGENCE BEHAVIOR: Balanced CONFIGURATION (Scenario 1)

