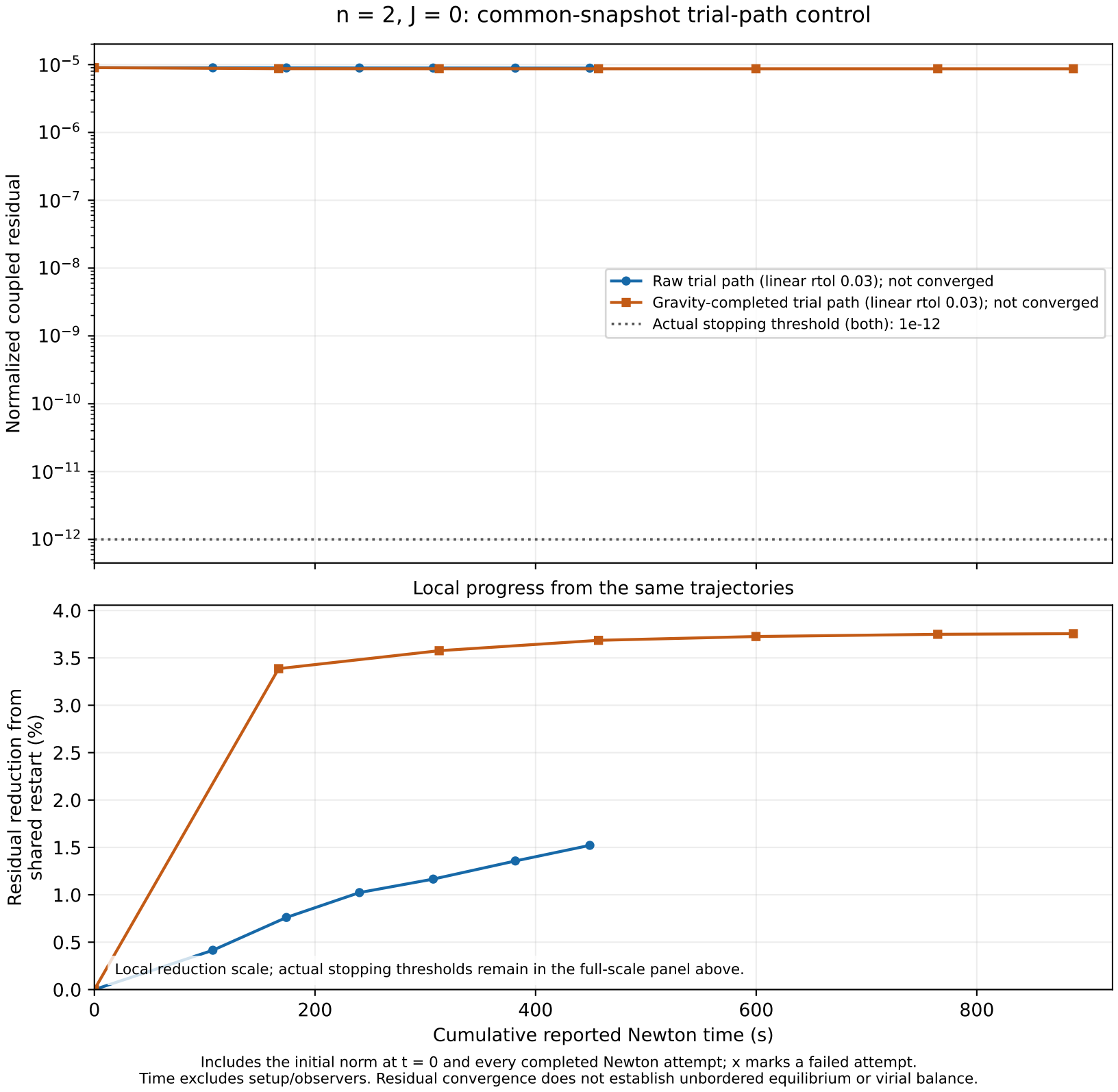

n = 2, J = 0: common-snapshot trial-path control
Normalized coupled residual
Raw trial path (linear rtol 0.03); not converged
Gravity-completed trial path (linear rtol 0.03); not converged
Actual stopping threshold (both): 1e-12
Local progress from the same trajectories
Residual reduction from shared restart (%)
Local reduction scale; actual stopping thresholds remain in the full-scale panel above.
Cumulative reported Newton time (s)
Includes the initial norm at t = 0 and every completed Newton attempt; x marks a failed attempt.
Time excludes setup/observers. Residual convergence does not establish unbordered equilibrium or virial balance.