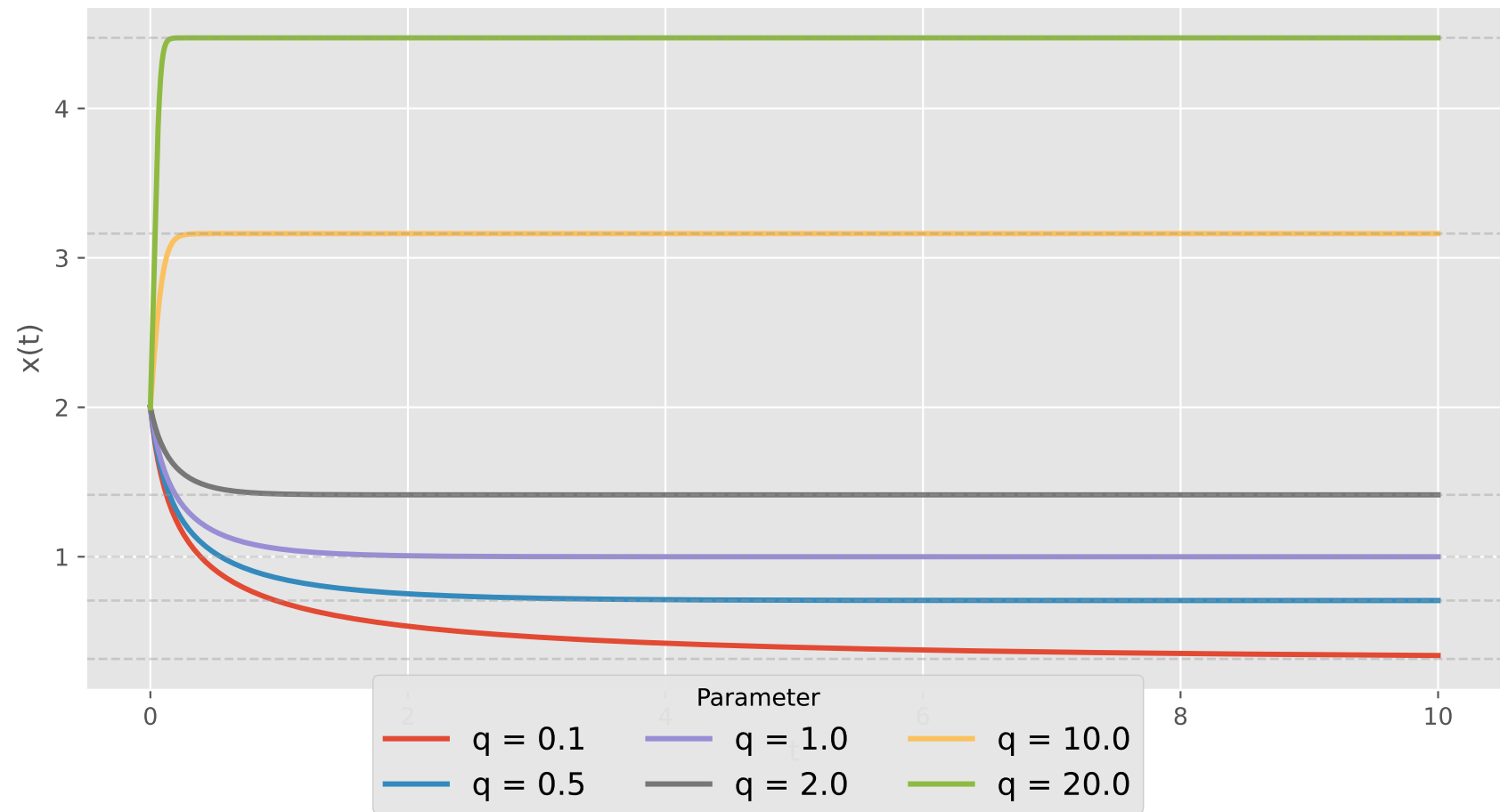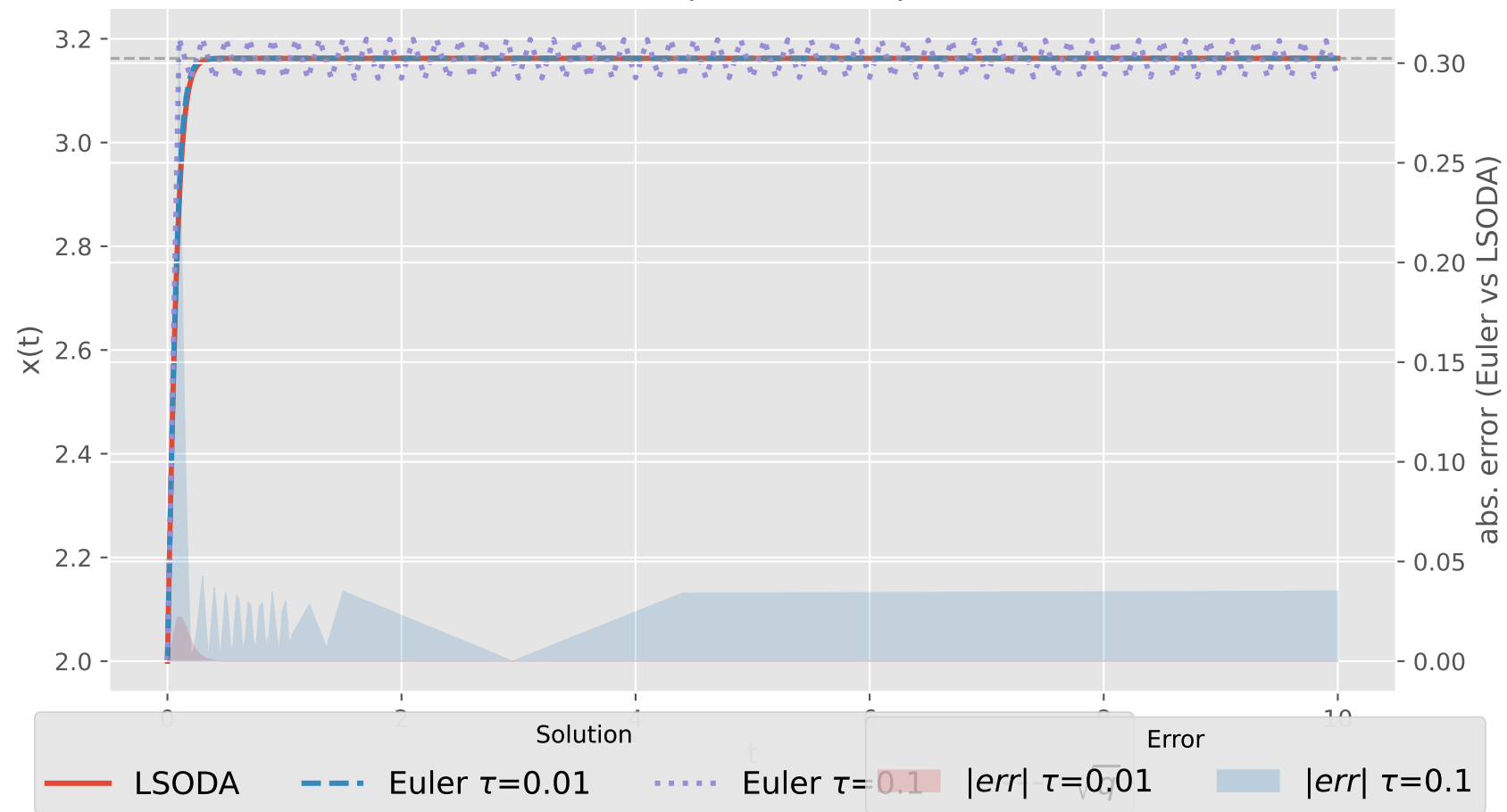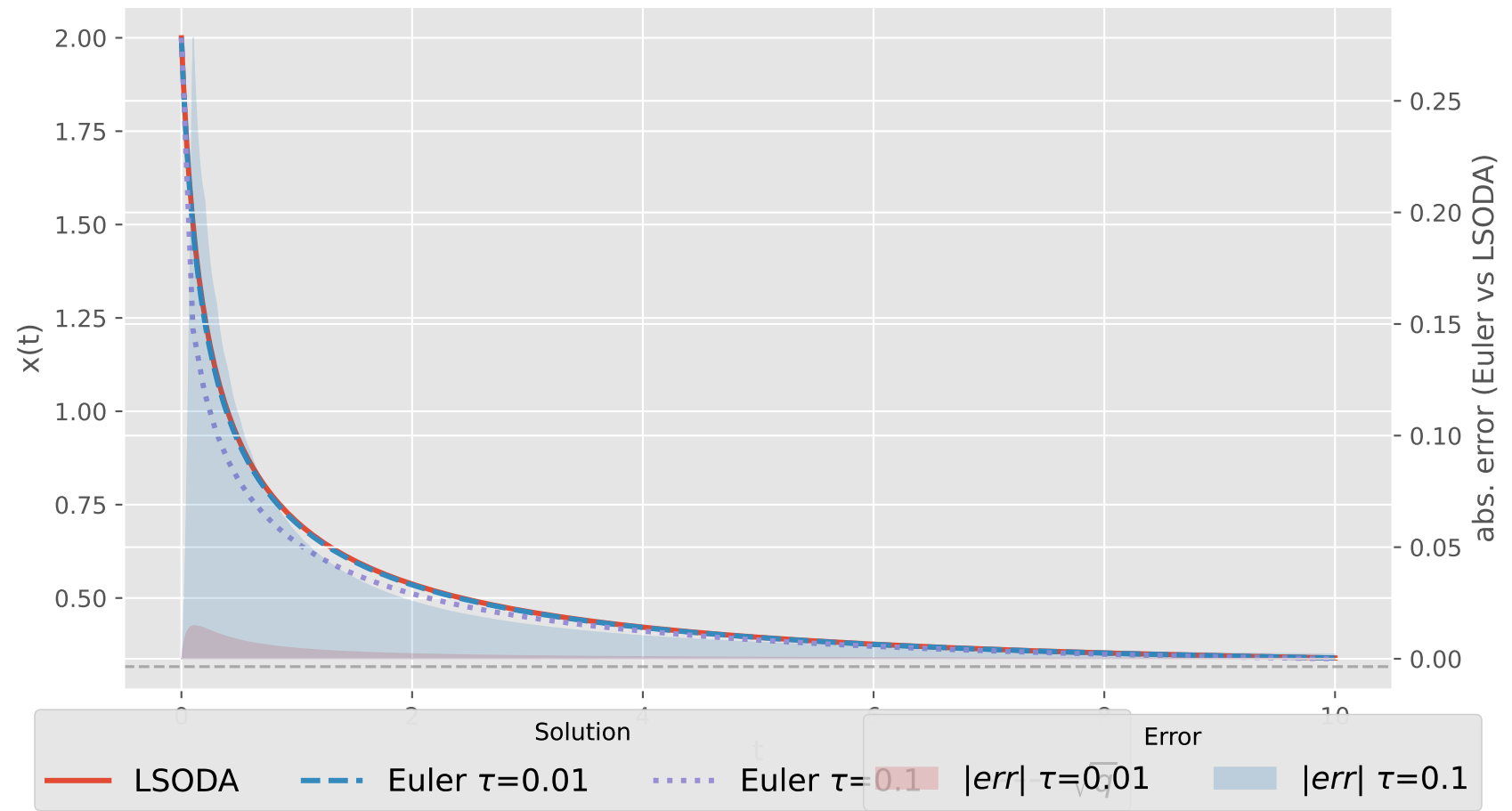Cubic ODE parameter sweep (equilibria shown)
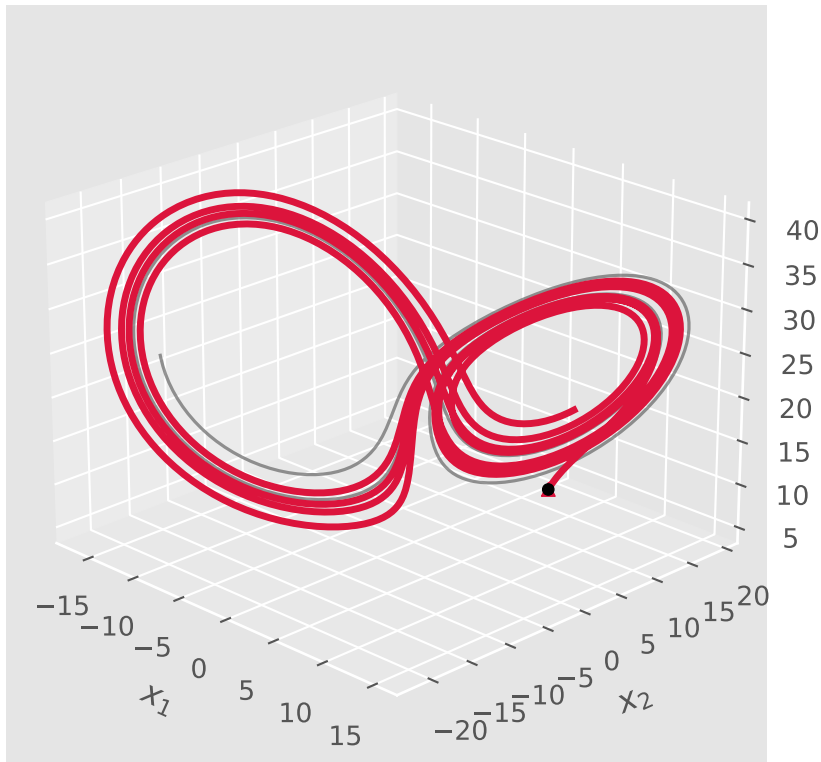
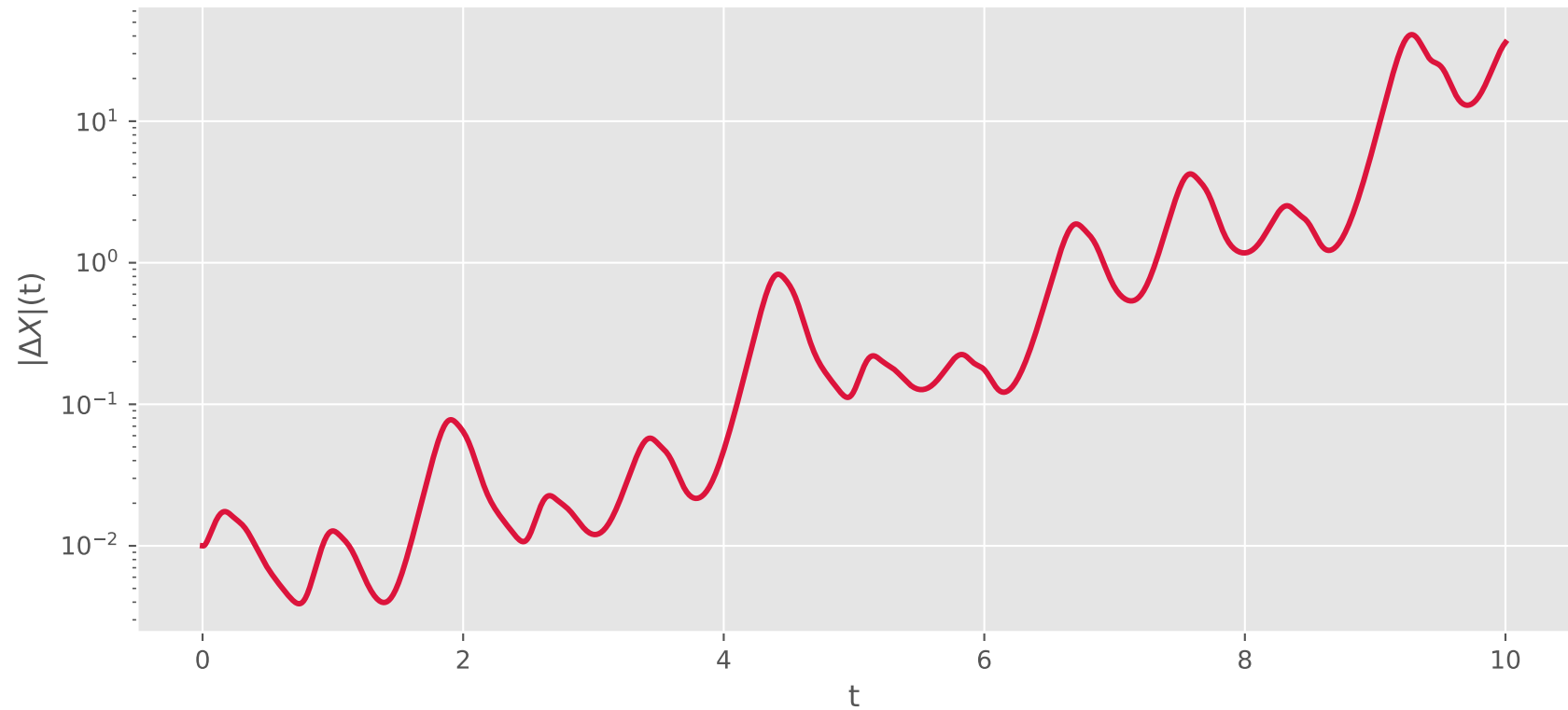Method comparison for q = 10.0

Method comparison for q = 0.1
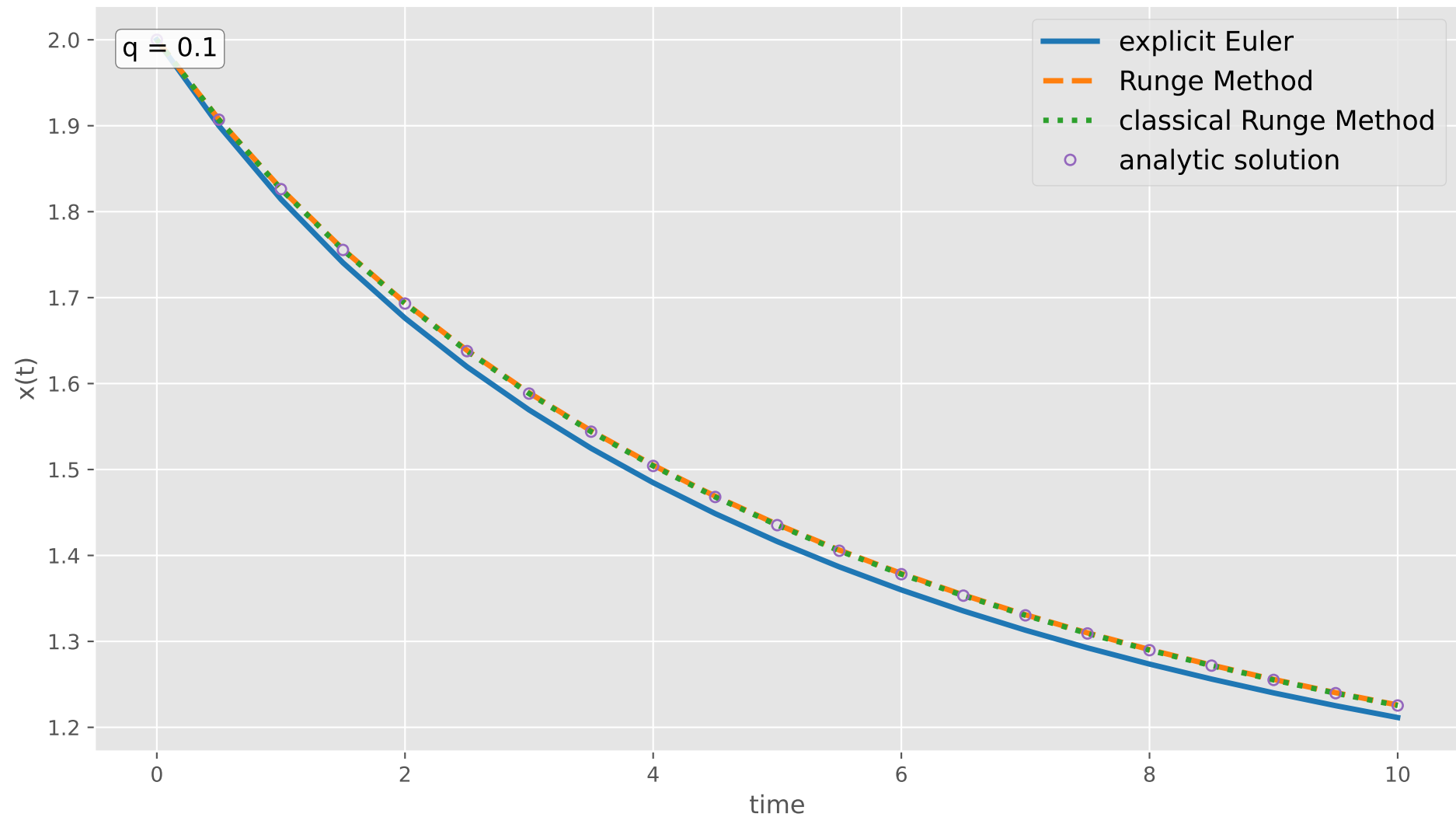
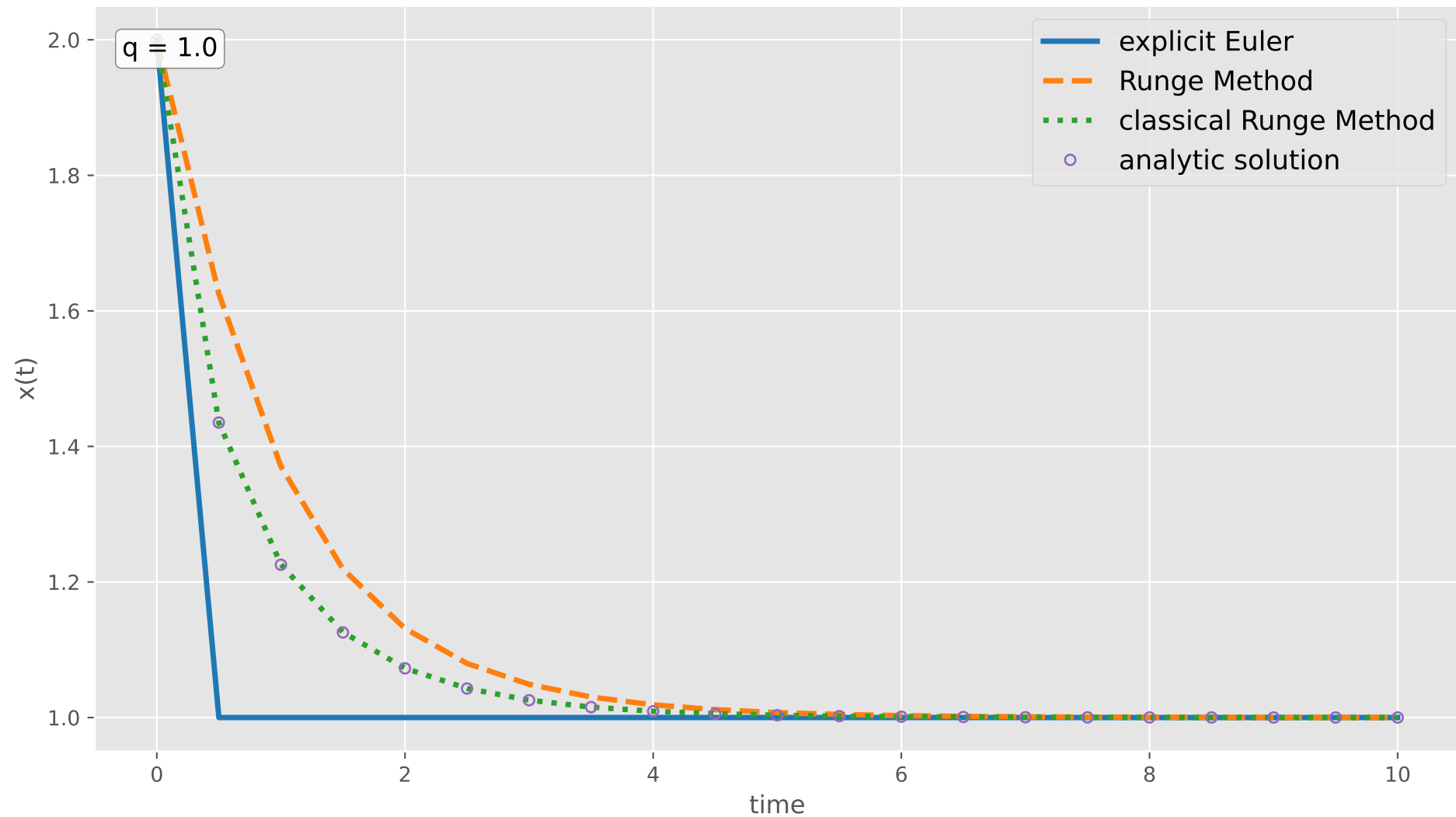Lorenz sensitivity to perturbing $x_2(0)$

Baseline $x_2(0) = 5.01$ perturbed

Lorenz trajectory separation

Approximation of the solution for different RK methods

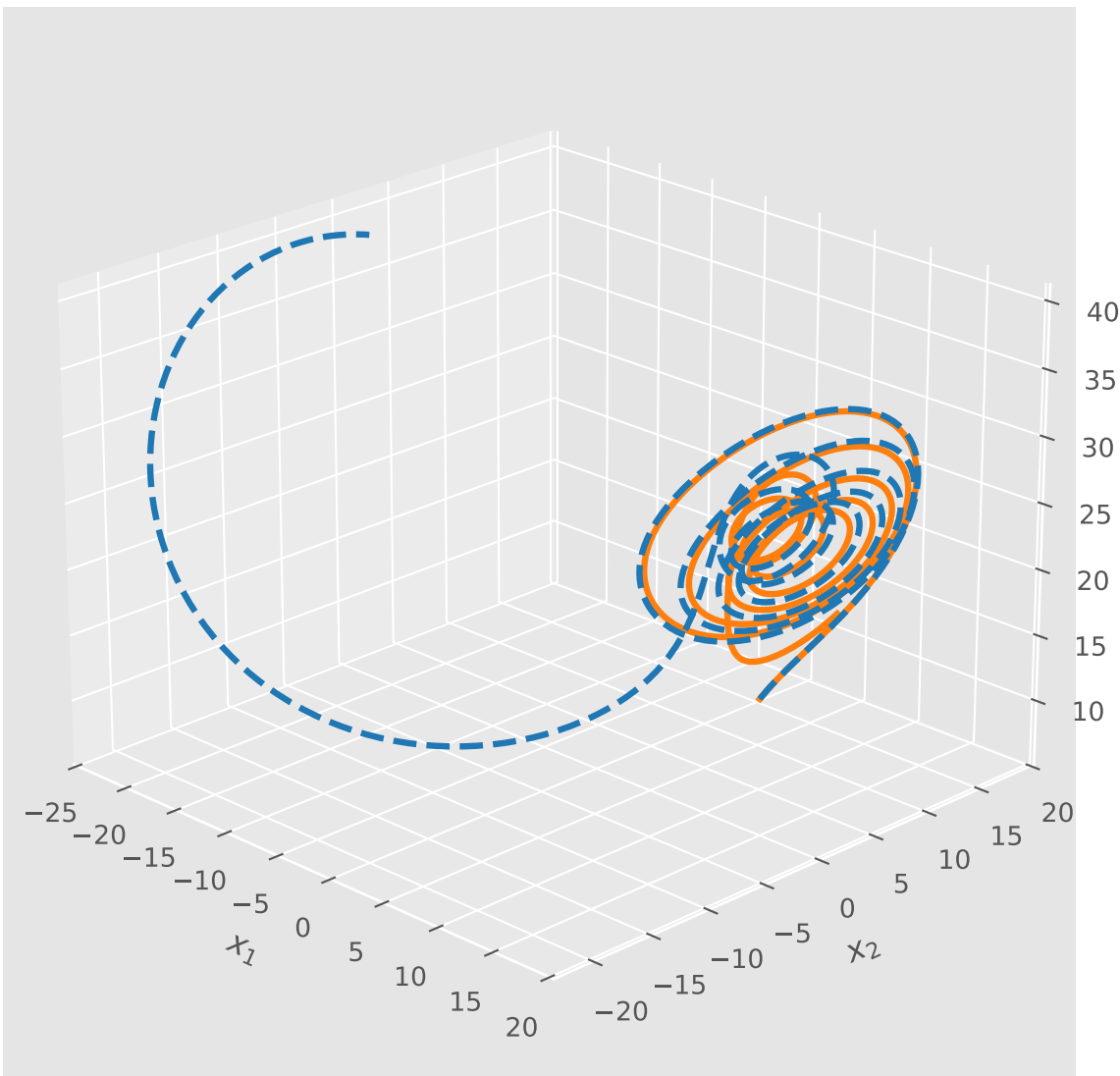Approximation of the solution for different RK methods

q = 1.0

- explicit Euler
- Runge Method
- classical Runge Method
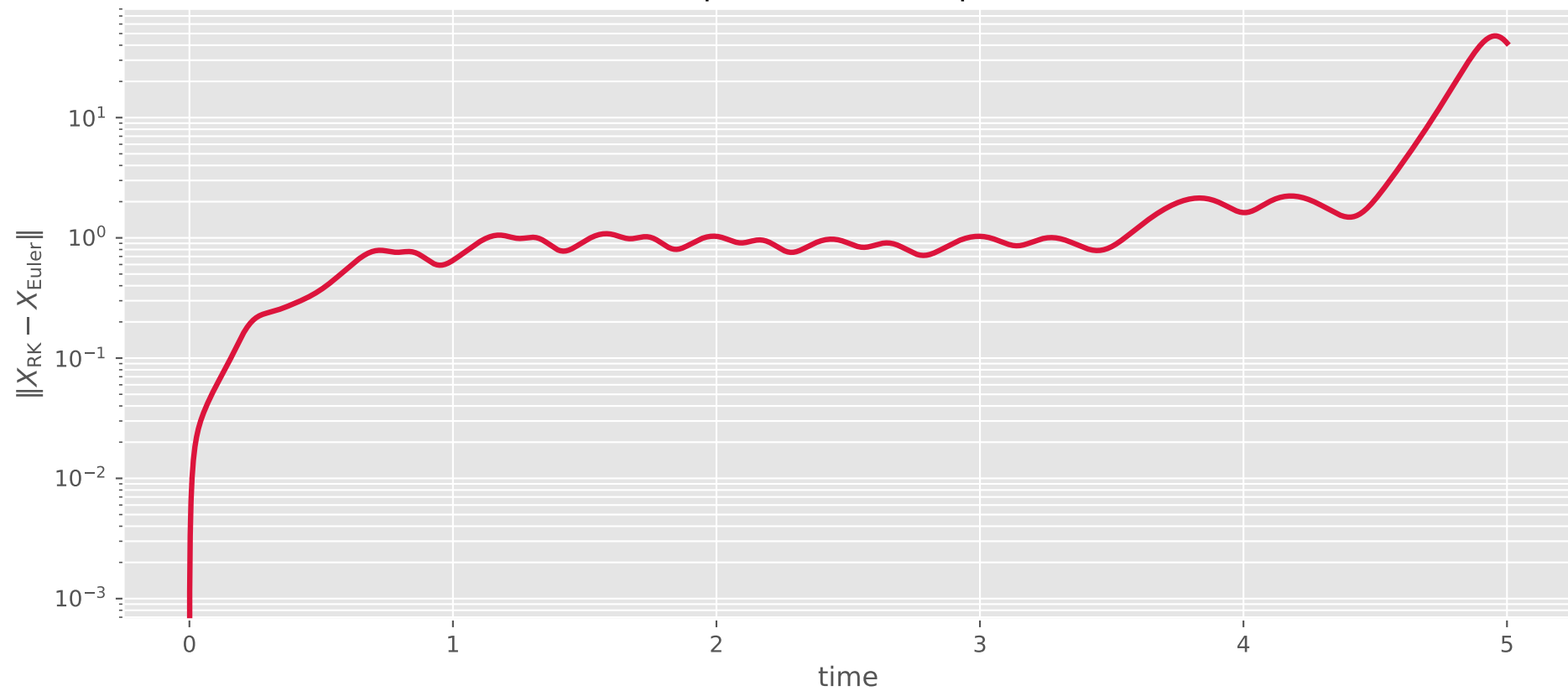- analytic solution

$\log_2, \log_2$ plot of the error for the three different RK methods
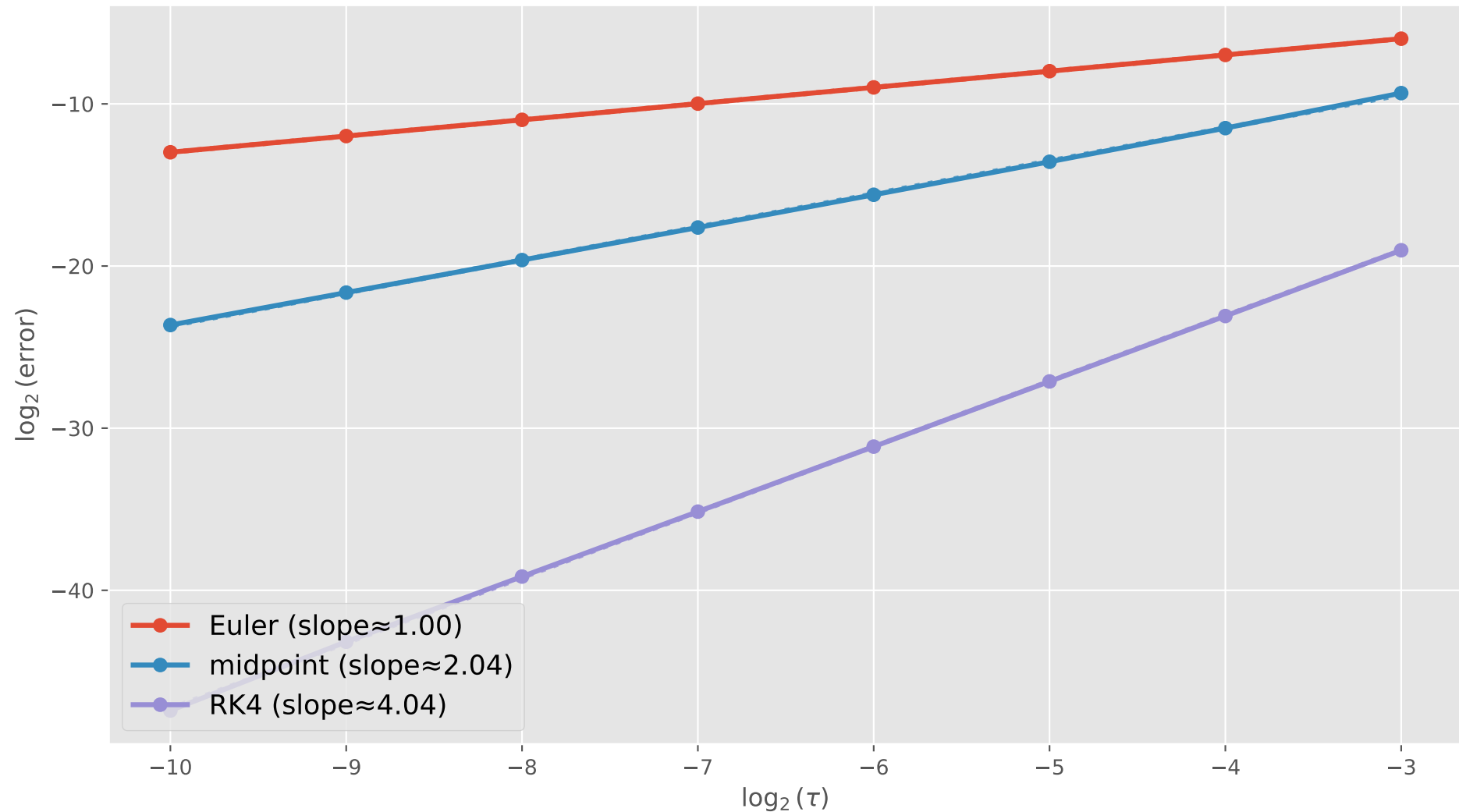
Forced Lorenz trajectories
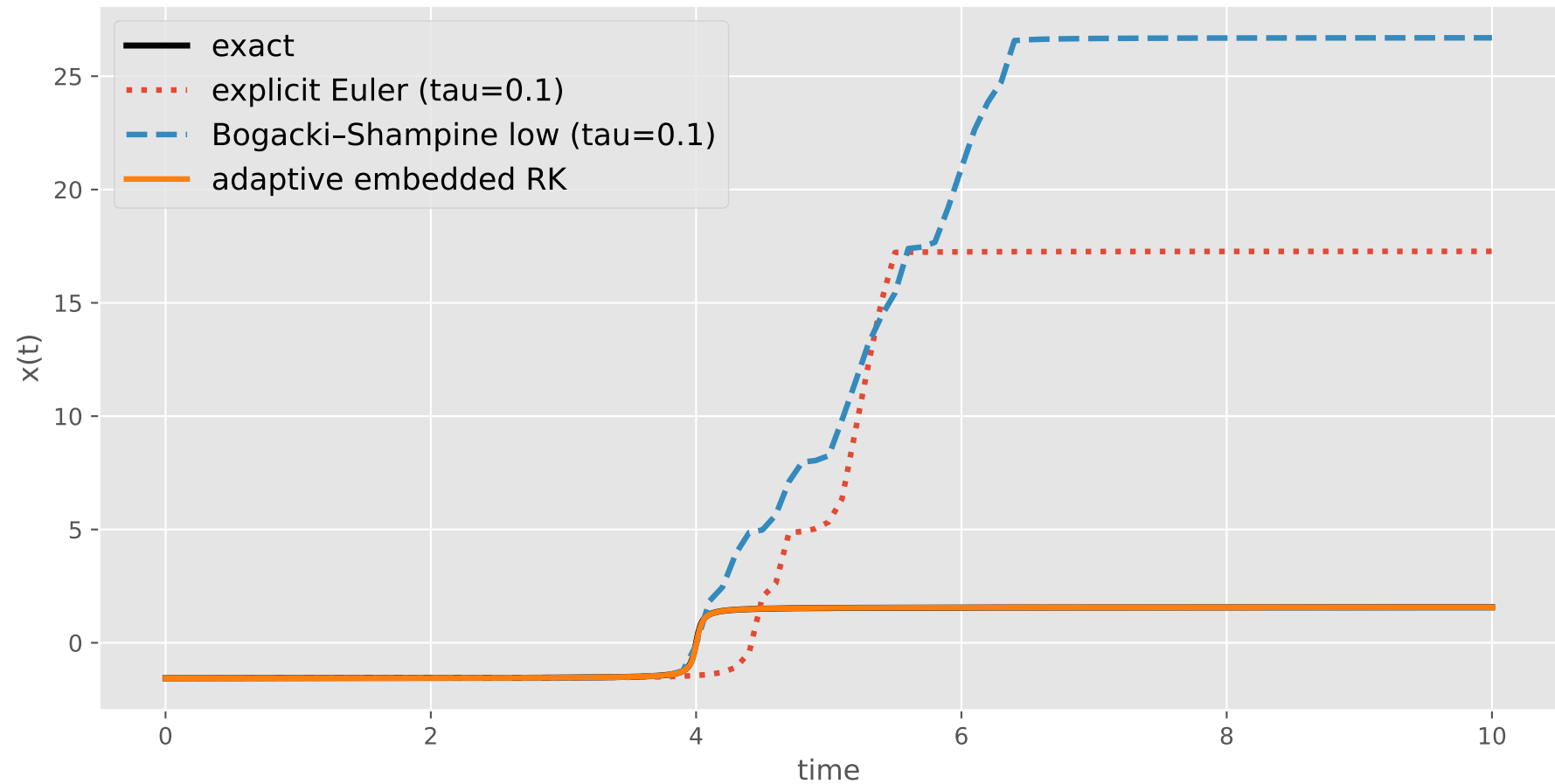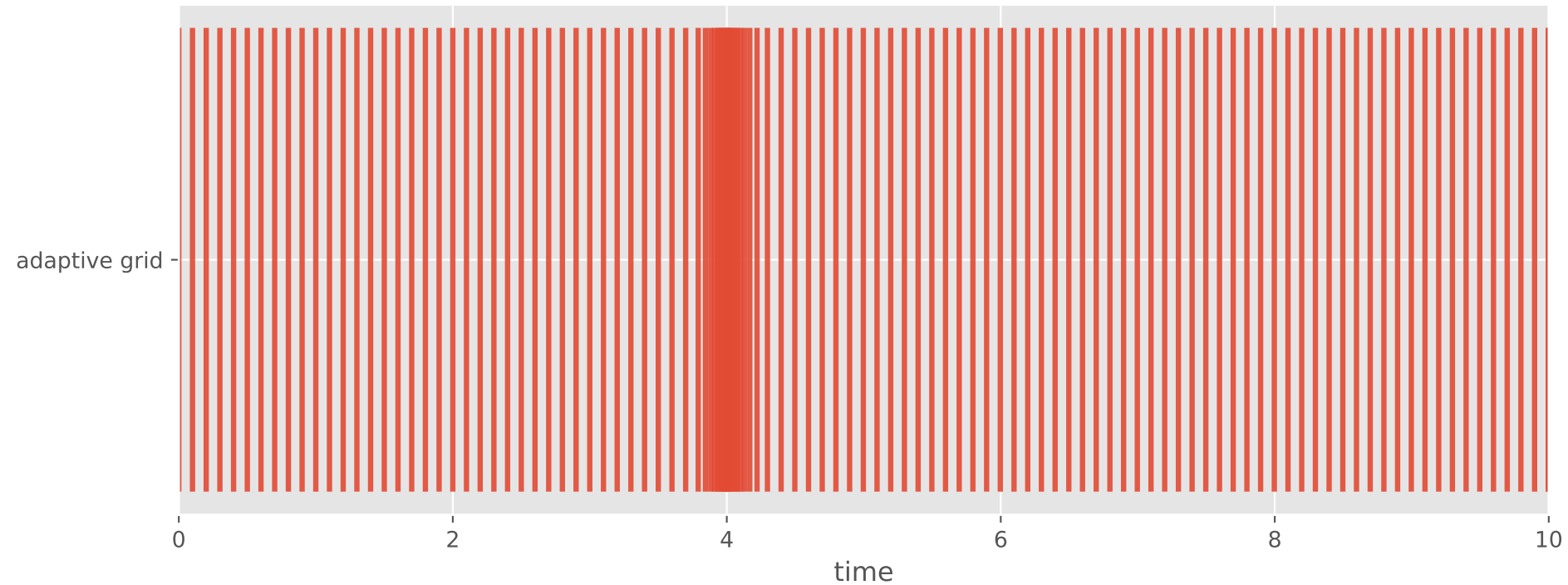
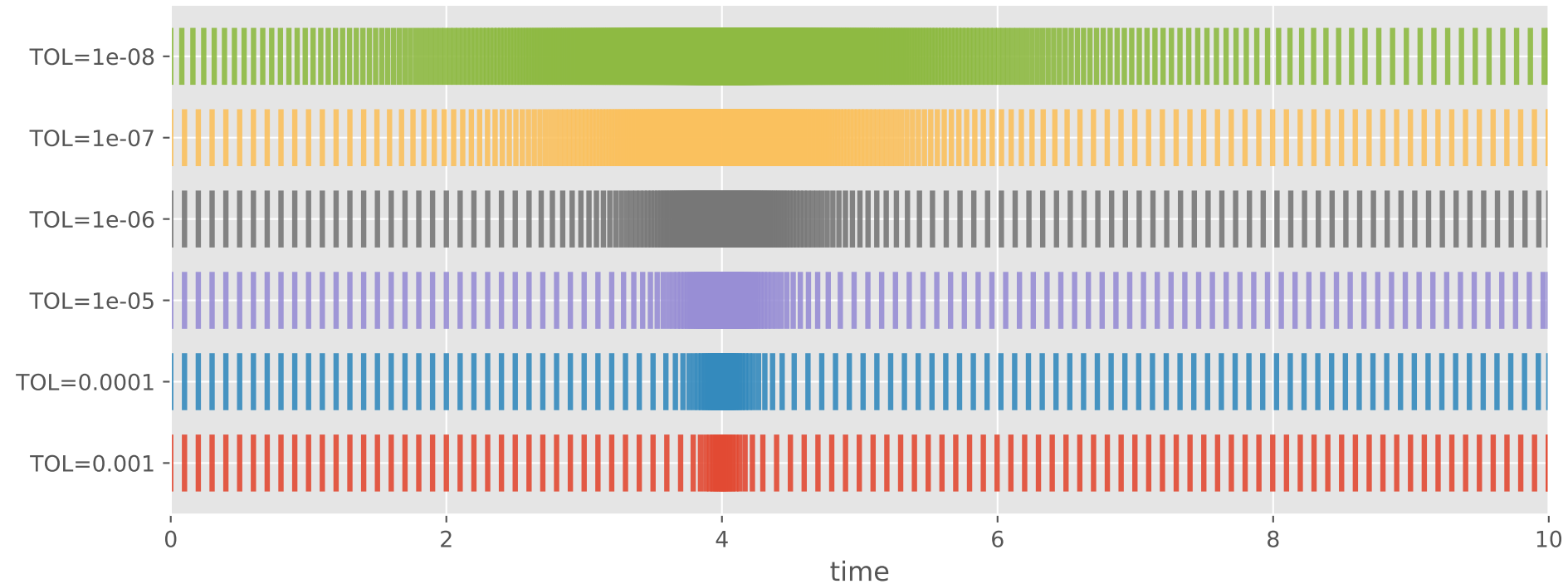Difference between midpoint RK and explicit Euler (forced Lorenz)

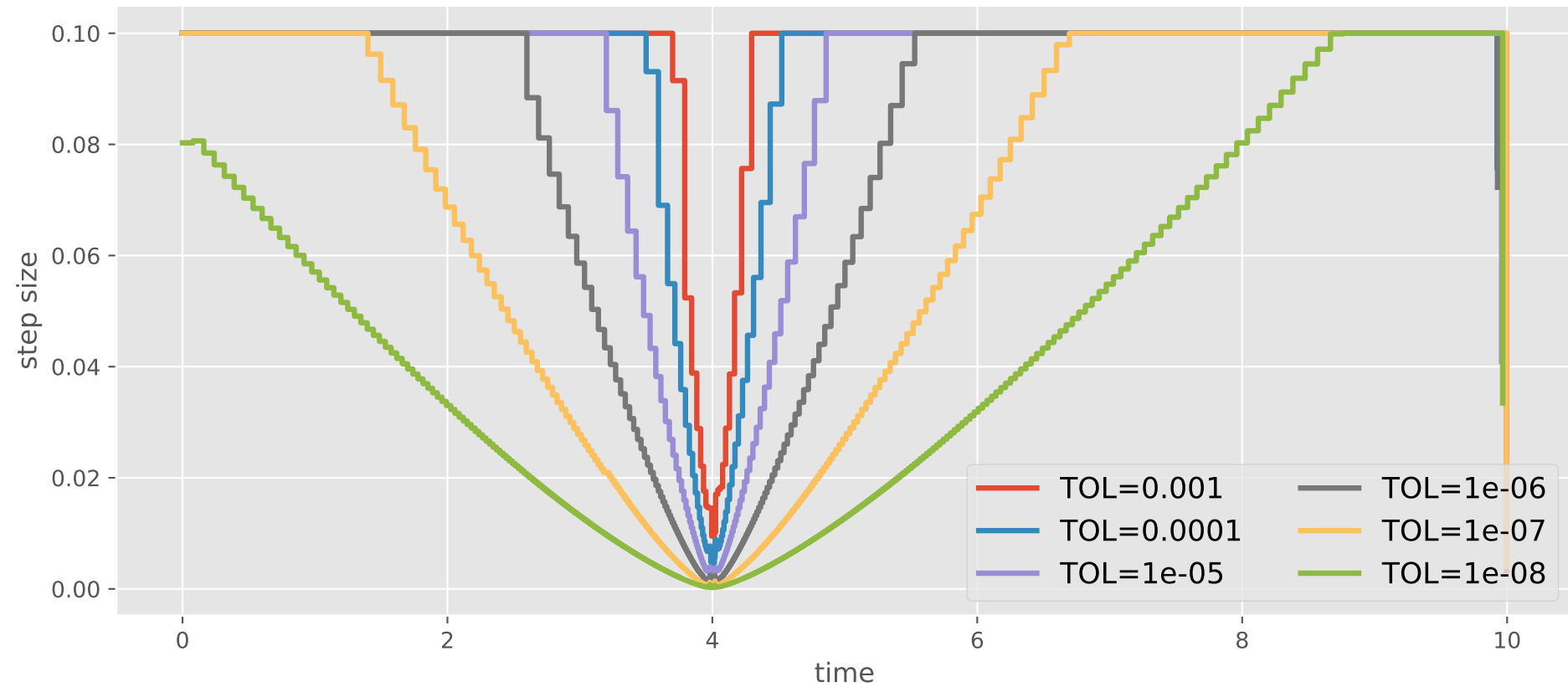Arctan problem: adaptive BS23 vs references

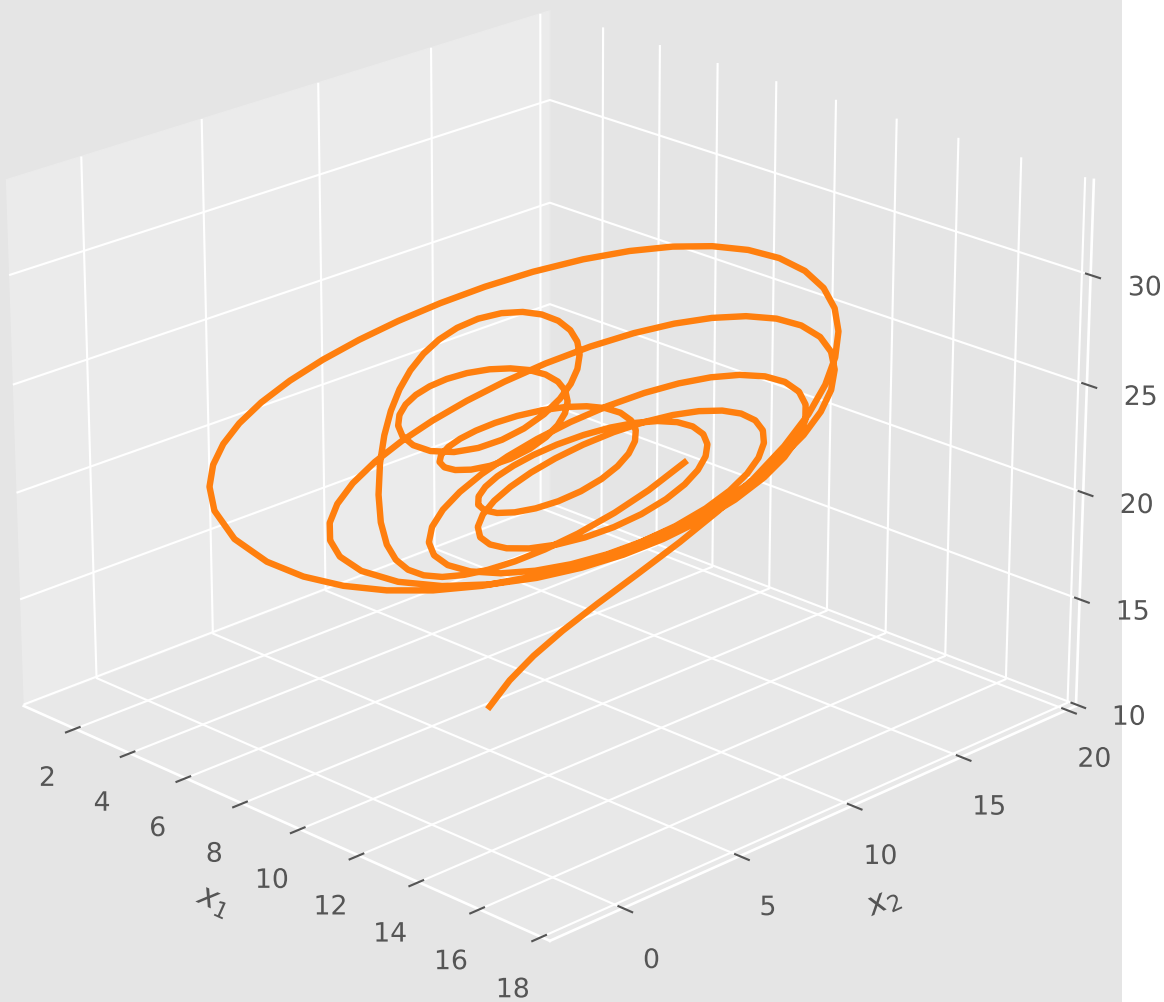Adaptive discretization points (BS23)

Adaptive grids for different tolerances

Step sizes over time for different TOL

Forced Lorenz (adaptive BS23)

Adaptive step sizes (Lorenz)