

Dublin Summer School on Gravitational Waves

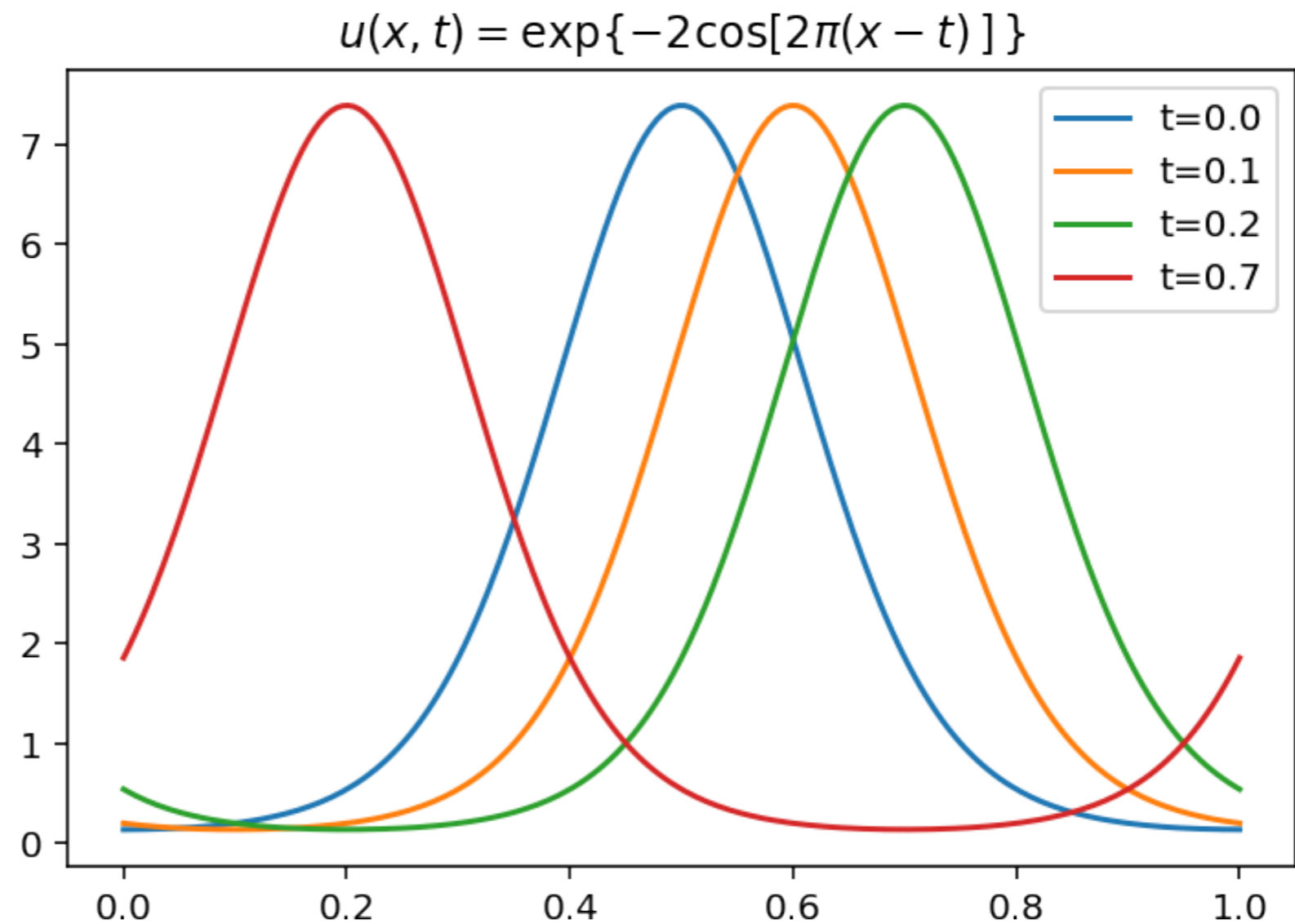
Numerical Relativity Day 1, supplementary material

Harald Pfeiffer
AEI

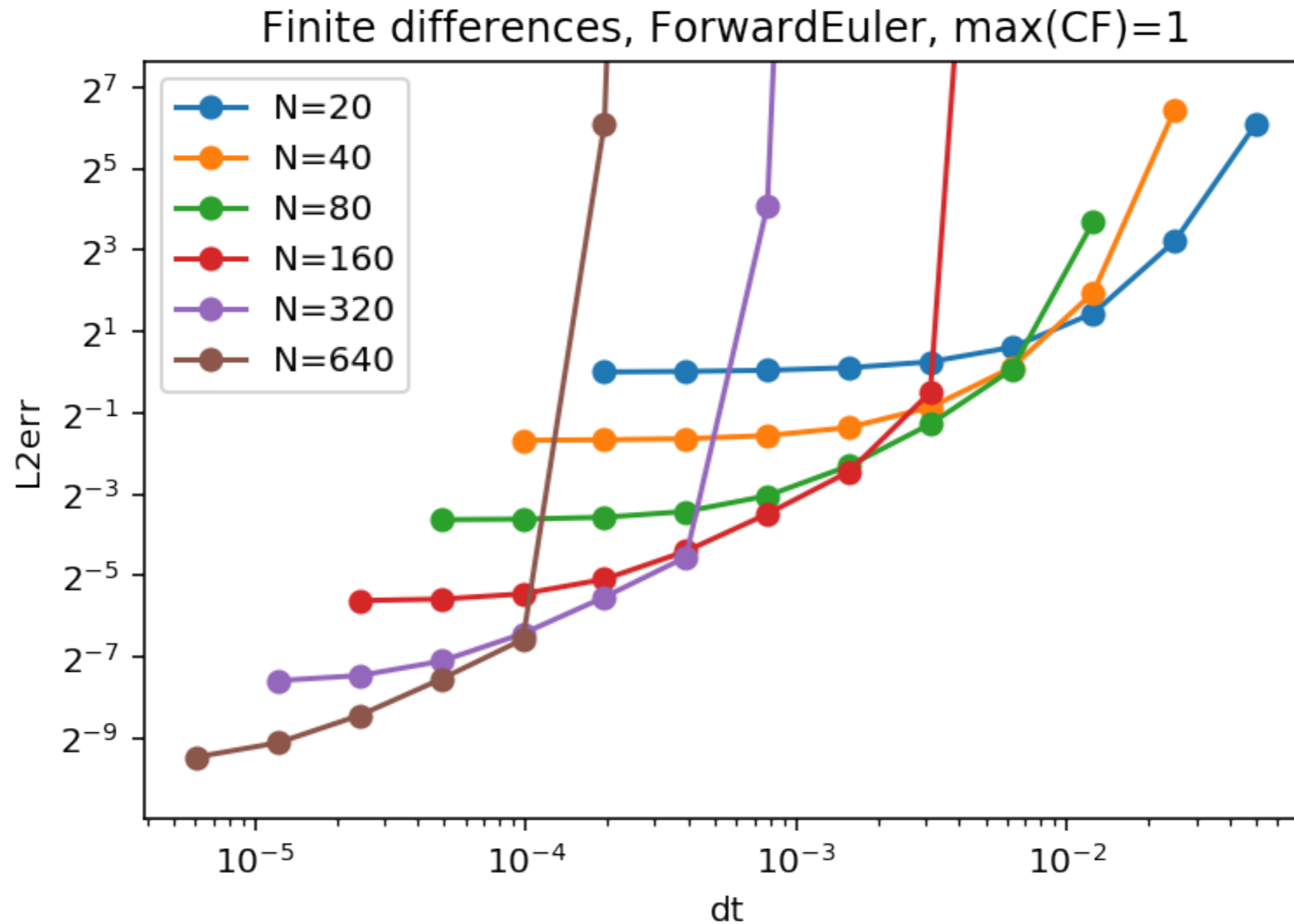
Example solution, advection eqn



$$\frac{\partial u}{\partial t} + \frac{\partial u}{\partial x} = 0$$



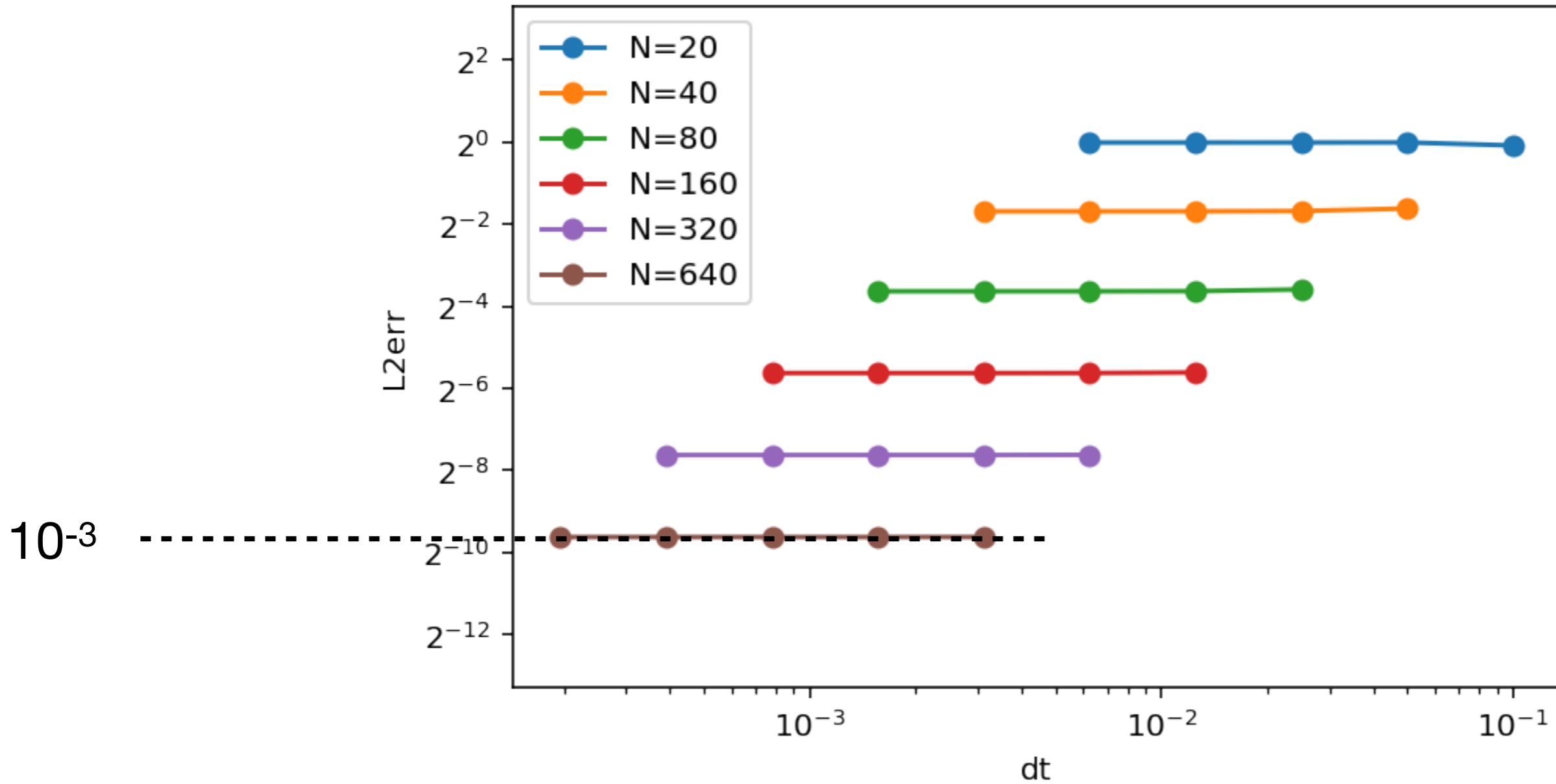
Convergence test



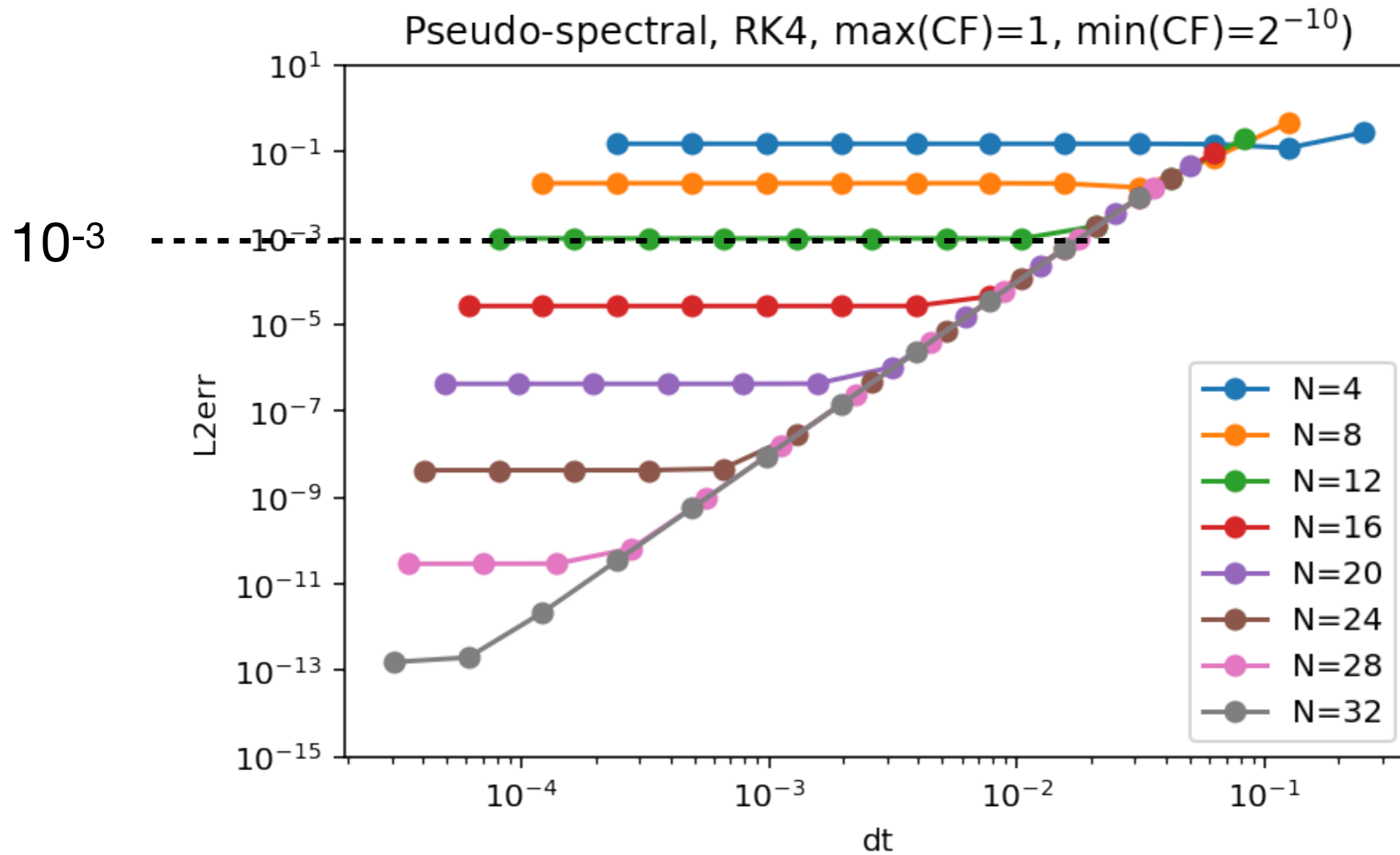
Convergence test 2



Finite differences, RK4, max(CF)=2)



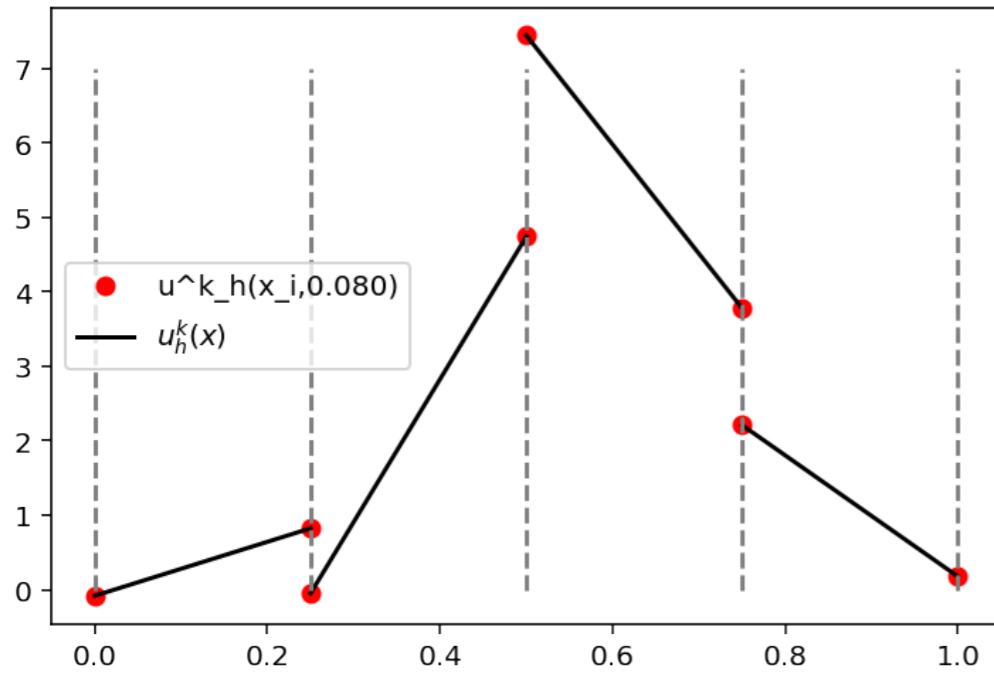
Convergence test 3



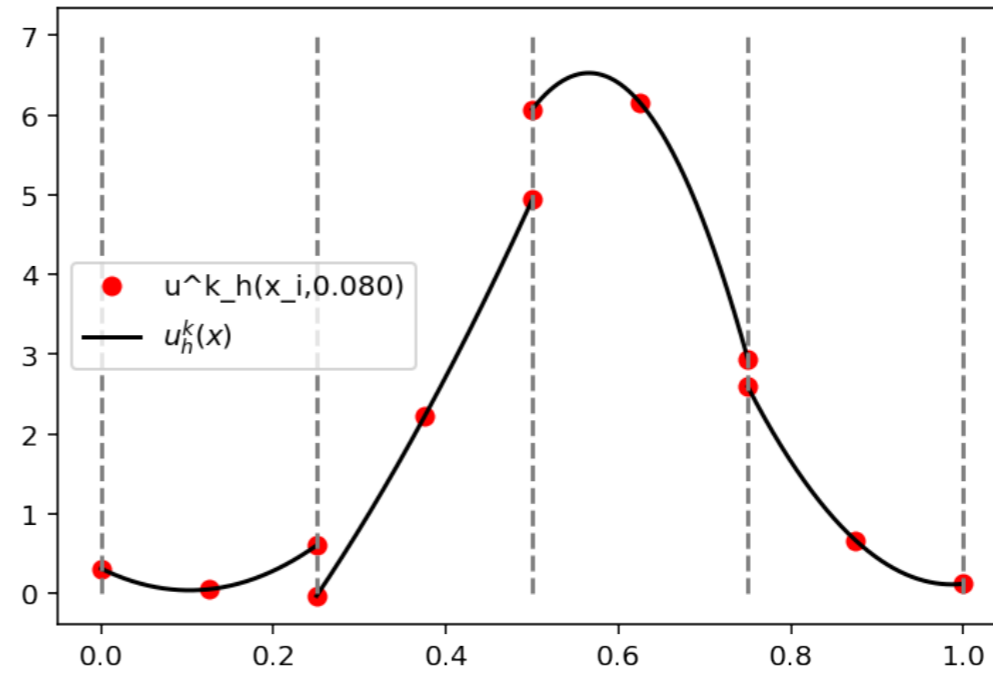
DG solution at different orders N



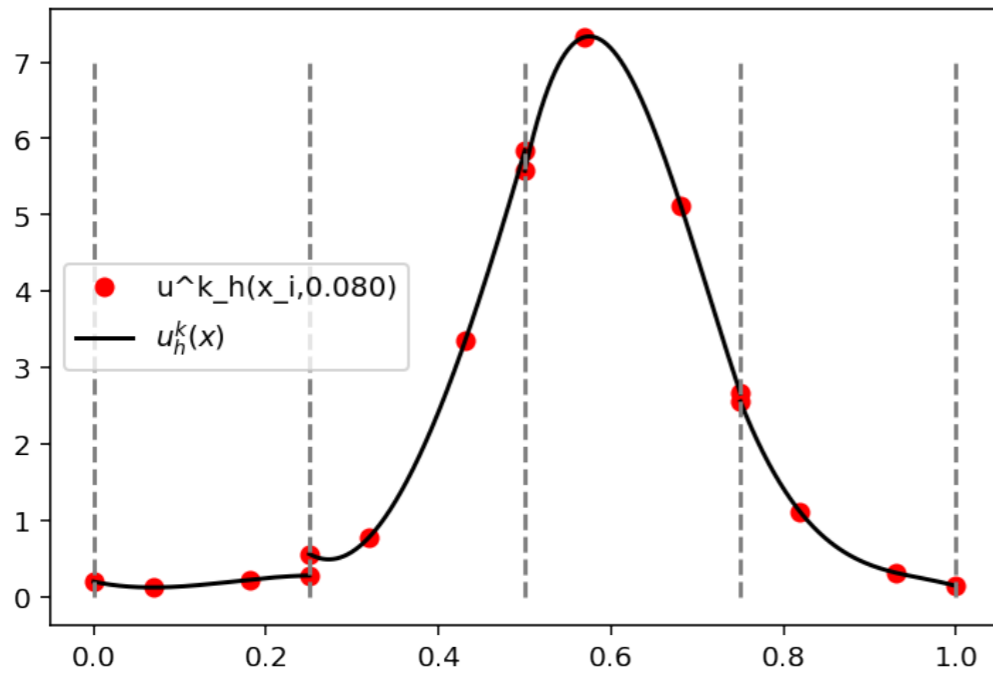
DG solution with K=4, N=1



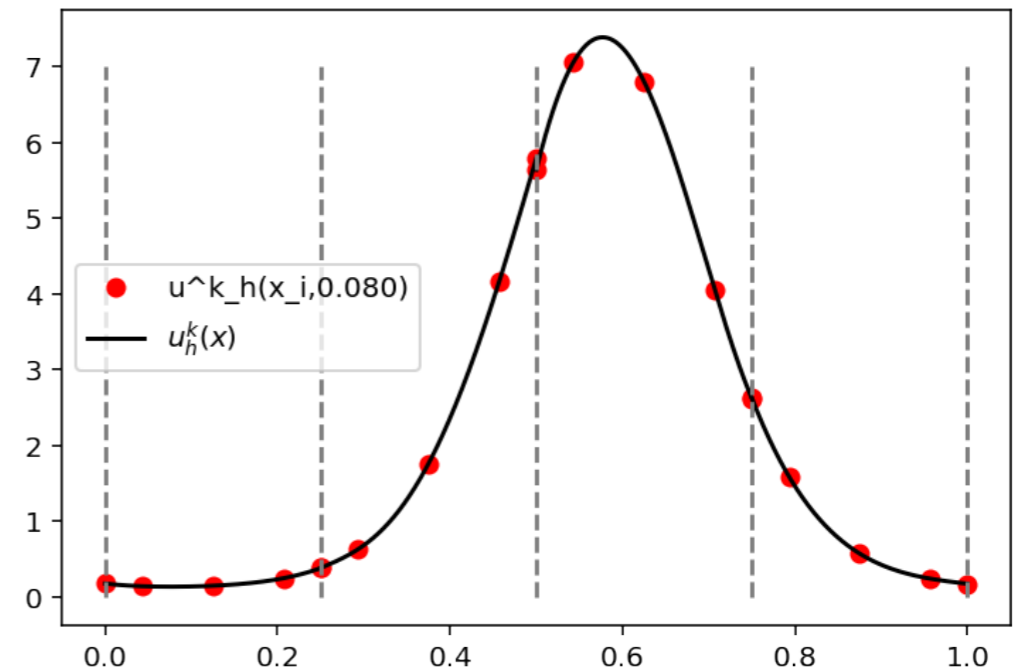
DG solution with K=4, N=2



DG solution with K=4, N=3



DG solution with K=4, N=4



Convergence test DG

