

EXERCISES SESSION 2

1. Assume you solve a differential equation, $y'(t) = g(t, y(t))$, using the forward Euler method using a step size of $\Delta t = 0.01$. Assume the (global) error is exactly as in the linear regime, and the error in $y(t_{\max})$ is 0.04. What would the error be if $\Delta t = 0.005$?

What would the global error be for $\Delta t = 0.005$ if Ralston is used instead (assuming an error of 0.03 for $\Delta t = 0.01$)?

2. The remaining exercises are on Blackboard, assessment section.

