

main time integration loop

variable step size loop

Solve SLE:

$$\mathbf{y}_n \rightarrow \mathbf{y}_{n+1}$$

Indicate LDE:

$$\|\mathbf{l}_{n+1}(\Delta t_n)\| \leq tol ?$$

no

Decrease step size and repeat:

$$\Delta t_n = \Delta t_n^*$$

yes

Propose step size and step on:

$$\Delta t_{n+1} = \Delta t_n^*, \Delta t_n := \Delta t_{n+1}$$

$$\mathbf{y}_n := \mathbf{y}_{n+1}$$