Summer of softwares

* Matlab solving ODE
* Graphical user interface, application

  Description automatically generatedODE Solver
* First define tspan and y0 .
* Then write the command to call ode45 function

Ex. [tSol,ySol] = ode45(@myTrigODE,tRange,y0)

* Now we can plot the solution ysol as function of tsol.

Text

Description automatically generated with medium confidence

* Function definitions must me written at the end of the script.

Graphical user interface, text, application

Description automatically generated

* we can use the deval function to evaluate the solution at any point in the interval tRange by passing the solution structure and the point to deval.

tRange = [0 4];

[sol] = ode45(@odefun,tRange,y0);

y2 = deval(sol,2);

Graphical user interface, text

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

* Graphical user interface, text, application

  Description automatically generatedSystem of ODEs