

0.04 pm
10/20/18

$$\begin{bmatrix} y_1'(t_1) \\ y_2'(t_1) \end{bmatrix} = \begin{bmatrix} x_{11} & x_{12} \\ x_{21} & x_{22} \end{bmatrix} \begin{bmatrix} y_1(t_1) \\ y_2(t_1) \end{bmatrix}$$

meat.

$$Y_1 \begin{bmatrix} y_1(t_1) \\ y_2(t_1) \end{bmatrix}$$

$$\begin{aligned} y_1'(t_1) &= \frac{y_1(t_2) - y_1(t_1)}{t_2 - t_1} \\ y_2'(t_1) &= \frac{y_2(t_2) - y_2(t_1)}{t_2 - t_1} \end{aligned}$$

$$\begin{cases} a_{11} y_1(t_1) + a_{12} y_2(t_1) = y_1'(t_1) \\ a_{21} y_1(t_1) + a_{22} y_2(t_1) = y_2'(t_1) \end{cases}$$

$$Y_2 \begin{bmatrix} y_1(t_2) \\ y_2(t_2) \end{bmatrix}$$

$$\begin{aligned} y_1'(t_2) &= \frac{y_1(t_3) - y_1(t_2)}{t_3 - t_2} \\ y_2'(t_2) &= \frac{y_2(t_3) - y_2(t_2)}{t_3 - t_2} \end{aligned}$$

$$a_{11} y_1(t_2) + a_{12} y_2(t_2) = y_1'(t_2)$$

$$Y_3 \begin{bmatrix} y_1(t_3) \\ y_2(t_3) \end{bmatrix}$$

Solver (n, Y₁, Y₂, Y₃)

$$[x_{11} \ x_{12} \ \dots \ x_{1n}] \cdot [y_1(t_1) \ y_2(t_1) \ \dots \ y_n(t_1)] =$$

(row 1) ↗