

$$\left\{ \begin{aligned} [1](,) &= -2[2][1](,) + \frac{8}{9} (|[1](,)|^2 + |[2](,)|^2) \quad [1](,)[2](,) = -2[2][2](,) + \frac{8}{9} (|[1](,)|^2 + |[2](,)|^2) \quad [2](,) \end{aligned} \right.$$

$$(1) \quad [j](\cdot, \cdot) j = 1, 2$$

$$\{[1] = [2][1]t + 2(|[1]|^2 + |[1]|^2)[1][2] = [2][2]t + 2(|[1]|^2 + |[2]|^2)[2]$$

$$(2) \quad \text{of}_{variables_N} LSE, \text{ herereportedforconvenience}[j] =$$

$$\frac{[j]\sqrt{P}}{T_0} =$$

$$P = \frac{2T_0^2}{\frac{8}{9}T_0^2} = \frac{9}{4}$$

$$\begin{array}{c} \frac{1}{2} 0 7 11 \\ T_0 \\ ?? \\ ?? \\ [1, 2](t) \\ (\mathbf{A} + \mathbf{B}) \\ \equiv \\ (-2^2 \mathbf{A} - 2\mathbf{B} + \mathbf{C}) \\ (-) 00 \end{array}$$

$$\begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix} \begin{pmatrix} 1 \\ 1 \\ 2 \end{pmatrix}$$

$$\overline{[1]^*00}$$

$$\frac{[1]^{*00}}{([1]^{*00} + [2]^{*00})[1][2]}$$

$$\begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix}^* - \begin{bmatrix} 1 \\ 2 \end{bmatrix}^* -$$

$$\begin{bmatrix} 1 \\ 2 \\ 2 \\ 2 \end{bmatrix}^* \begin{bmatrix} 2 \\ 2 \\ 1 \\ 2 \end{bmatrix} -$$

$$\left| \begin{bmatrix} z \\ [1, 2] \end{bmatrix} \right|_0$$

$$timeare[?] :$$

$$\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} \xrightarrow{e^-} \begin{pmatrix} 0 \\ 0 \\ 0 \end{pmatrix}$$

$$01e \rightarrow -\infty \rightarrow$$

$$\begin{pmatrix} 0 \\ 0 \end{pmatrix} \xrightarrow{0} 01e; \rightarrow$$

$$\begin{array}{c} 01e; \rightarrow \\ (1) \\ 0 \\ 0e^- \rightarrow \\ +\infty. \end{array}$$

$$\left\{ \begin{array}{l} \vdots \\ \vdots \\ \vdots \\ \vdots \end{array} \right\}, \left\{ \begin{array}{l} \vdots \\ \vdots \\ \vdots \\ \vdots \end{array} \right\}.$$

$$\begin{pmatrix} 1, j \\ 2 \times \\ 2 \\ -1 \end{pmatrix} \in$$