

$$\begin{array}{c}
 \mathbf{y}(t) \\
 \left[ \begin{array}{c} \text{green wave} \\ \text{green wave} \\ \vdots \\ \text{blue wave} \\ \text{blue wave} \end{array} \right]
 \end{array}
 =
 \begin{array}{c}
 \mathbf{X} \\
 \left[ \begin{array}{cc}
 1 & 1.5 \\
 1 & 0 \\
 \vdots & \vdots \\
 1 & 1.2 \\
 1 & 0
 \end{array} \right]
 \end{array}
 \begin{array}{c}
 \boldsymbol{\beta}(t) \\
 \left[ \begin{array}{c} \text{black wave} \\ \text{red curve} \end{array} \right]
 \end{array}
 +
 \begin{array}{c}
 \mathbf{Z} \\
 \left[ \begin{array}{cccc}
 1 & \cdot & \cdot & \cdot \\
 1 & \cdot & \cdot & \cdot \\
 \cdot & \cdot & \cdot & \cdot \\
 \cdot & \cdot & \cdot & \cdot \\
 0 & \cdot & \cdot & \cdot \\
 0 & \cdot & \cdot & \cdot
 \end{array} \right]
 \end{array}
 \begin{array}{c}
 \mathbf{u}(t) \\
 \left[ \begin{array}{c} \text{green wave} \\ \vdots \\ \text{blue wave} \end{array} \right]
 \end{array}
 +
 \begin{array}{c}
 \boldsymbol{\varepsilon}(t) \\
 \left[ \begin{array}{c} \text{green wave} \\ \text{green wave} \\ \vdots \\ \text{blue wave} \\ \text{blue wave} \end{array} \right]
 \end{array}$$