

# LINEAR SYSTEM STRUCTURE: $\mathbf{Ax} = \mathbf{b}$

$$\begin{array}{c}
 \begin{array}{ccccc}
 \beta_x & \beta_y & \theta_E & a & b \\
 \hline
 \text{Im1\_x} & A & A & A & A \\
 \text{Im1\_y} & A & A & A & A \\
 \text{Im2\_x} & A & A & A & A \\
 \text{Im2\_y} & A & A & A & A \\
 \text{Im3\_x} & A & A & A & A \\
 \text{Im3\_y} & A & A & A & A \\
 \text{Im4\_x} & A & A & A & A \\
 \text{Im4\_y} & A & A & A & A
 \end{array} &
 \times &
 \begin{array}{c}
 \beta_x \\
 \beta_y \\
 \theta_E \\
 a \\
 b
 \end{array} &
 = &
 \begin{array}{c}
 b_1 \\
 b_2 \\
 b_3 \\
 b_4 \\
 b_5 \\
 b_6 \\
 b_7 \\
 b_8
 \end{array}
 \end{array}$$

Blue rows: Used to SOLVE for parameters

Green rows: Used to CHECK consistency  $\rightarrow h(\phi_y) = 0$

Yellow rows: Redundant (extra consistency checks)