



$$\begin{bmatrix} A_{11} \\ A_{12} \\ A_{13} \\ \vdots \\ A_{1m} \end{bmatrix} x_1 + \begin{bmatrix} A_{21} \\ A_{22} \\ A_{23} \\ \vdots \\ A_{2m} \end{bmatrix} x_2 + \dots + \begin{bmatrix} A_{n1} \\ A_{n2} \\ A_{n3} \\ \vdots \\ A_{nm} \end{bmatrix} x_n = b$$

$$A_1 x_1 + A_2 x_2 + \dots + A_n x_n = b$$

$$Ax = b \Leftrightarrow \min \|A \cdot x - b\|^2$$