

$$y = \Phi X$$

Diagram illustrating the matrix equation $y = \Phi X$. The vector y is shown as a vertical column of $D \times 1$ elements, with a red element highlighted. The matrix Φ is a $D \times N$ matrix with $N > D$, where each row has exactly one non-zero element. The vector X is shown as a vertical column of $N \times 1$ elements, with a red element highlighted. The text "K-sparse" is written below the vector X .

$M = |\Omega| < N$
sensors selected