

The diagram illustrates the SVD decomposition of a matrix A' . It is represented as the product of three matrices: U_t , Σ , and V_t^T .

- A' is shown as a tall rectangular block on the left.
- $=$ is the equality symbol.
- U_t is a tall rectangular block.
- Σ is a square block containing the singular values $\sigma_1, \dots, \sigma_t$ along its main diagonal. This block is enclosed in a dashed rectangular box.
- V_t^T is a wide rectangular block.

The dashed boxes around U_t and Σ indicate that these matrices are part of a larger decomposition, likely representing the full SVD where U and V are square orthogonal matrices.

$$A' = U_t \begin{bmatrix} \sigma_1 & & \\ & \ddots & \\ & & \sigma_t \end{bmatrix} V_t^T$$