

Application 4: Temporal v. Spatial Encoding

Data: Movie from a (low end) web cam- 248 images, each 120×160 pixels.

Transformed to a matrix, 19200×248 .

Let $X = U\Sigma V^T$ be the SVD, computed by $X^T X = V\Sigma^2 V^T$, and $XV\Sigma^{-1} = U$

Each col of U : Translate to an image.

What does $V^{248 \times 3}$ represent?