



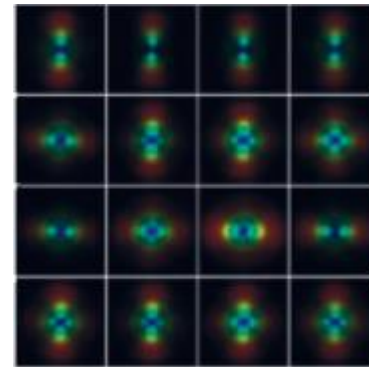
# memLens Visual Tagging



Thumbnail



Compute spatial feature vector for real-time performance

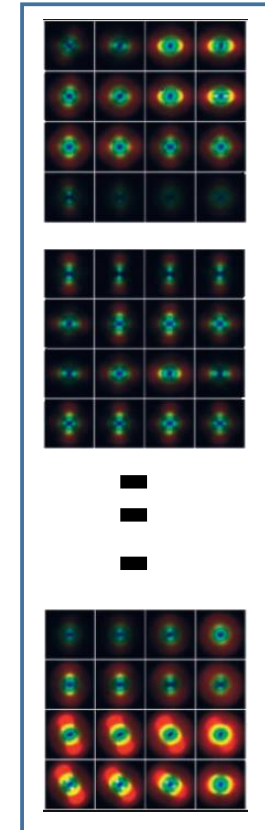


Texture

Color

**Intensity**

Shape



Store feature vectors per user and retrieve best matches based on Euclidean distance

# Fast GIST - memLens



- **Fast to compute to give real-time results**
  - Principal Component Analysis to reduce number of dimensions
  - Extract 128 or 256 features
  - Fourier transform for spectral representation of the image
- **memLens Algorithm**
  - Color histograms, Gray scale spatial pools, Edges (canny edge detection)
- **When compute and battery power improve we can add:**
  - Visual Words from SIFT Feature Clustering
- **Current Limitations:**
  - User's Camera Angles in 3D Imaging Scenarios