Dense Motion Estimation
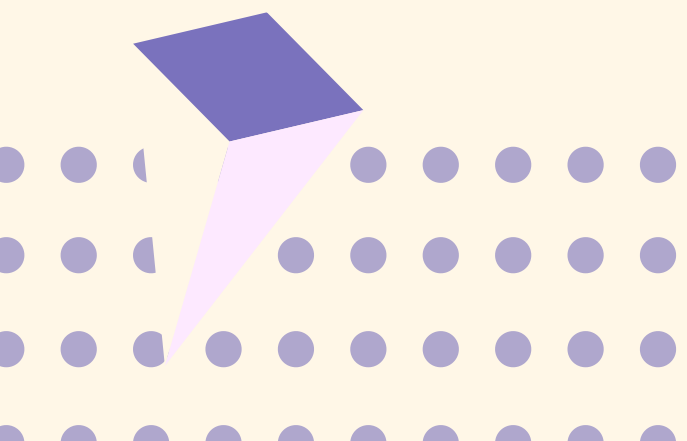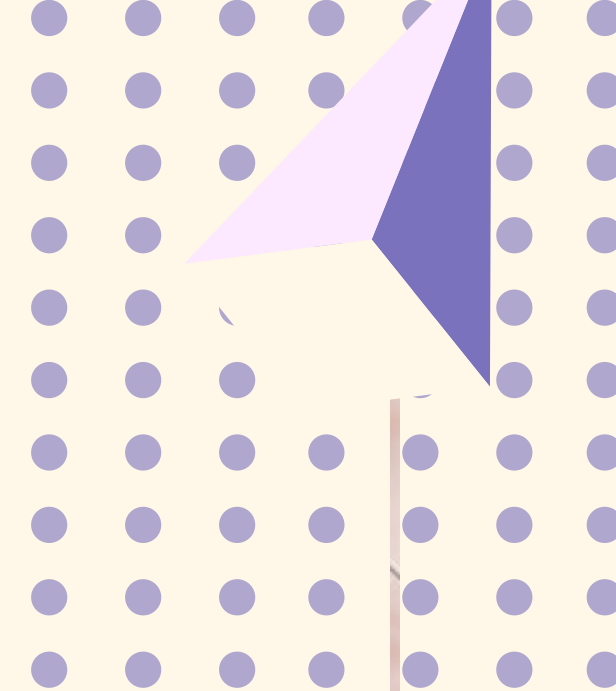
Simplified
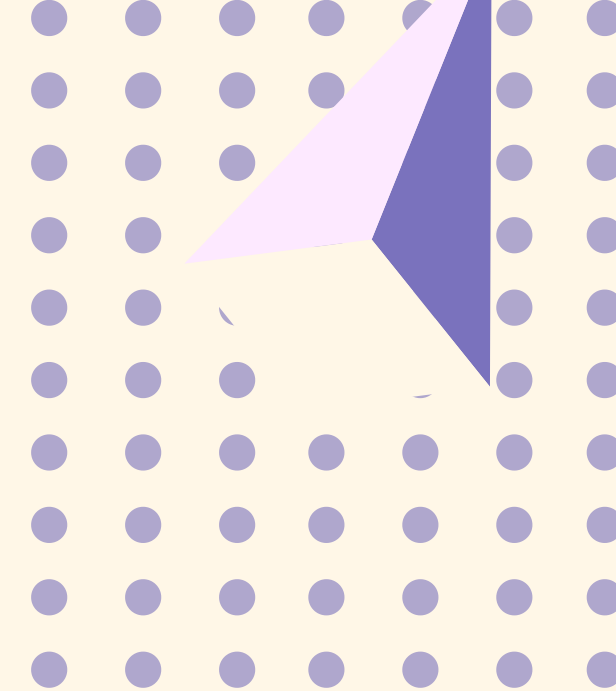
MOTION ESTIMATION TECHNIQUE

>Feature Based Methods

•Extract Visual Features (Corners,Textured Areas) and track them over multiple frames.

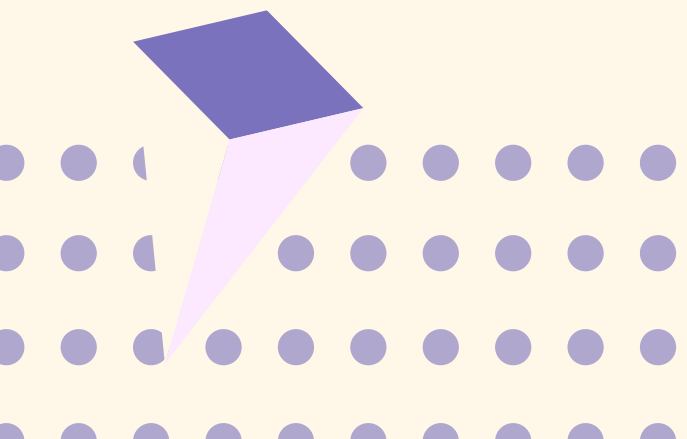•Sparse motion fields,but more robust tracking.

MOTION ESTIMATION TECHNIQUE

>Direct, dense methods

•Directly recover image motion at each pixel fromp spatio-temporal image brightness variations.

•Dense motion fields, but sensitive to appearance variations

•Suitable for video and when image motion is small

DENSE MOTION ESTIMATION

• A Suitable Error Metrics Must First be chosen to compare the images.

•A Suitable Search Technique Must Be Devised(Full Search/ hierarchical coarse-to-fine) technique.

•For More complex motion, piecewise parametric spline motion model can be used.