Texture

Issues

1. Analysis
   - Determining if textures are similar
2. Synthesis
   - Creating textures from other textures
   - Painting
3. Segmentation
4. Shape

What is Texture?

- Repeats with variation
- Must separate what repeats and what stays the same
- Model as repeated trials of a random process
   - Probability distribution stays the same
   - Each trial is different

How to Compare Textures

- Simplest comparison is SSD
- View histograms
   - Test probability samples drawn from same distribution
- Chi squared distance between histograms
- chi2(hi,hj) = 0.5 * sum([hi(m) - hj(m)]^2 / [hi(m) - hj(m)], 0, K, m)

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