Human Visual System

Computer Vision I
CSE 252A
Lecture 2

Announcements

• Assignment 0: “Getting Started with Matlab” is posted to the web page
• Some excellent review slides on
  – Linear algebra
  – Random variables and vectors
  by Tim Marks is posted to the web page
• Sign up on the mailing list

Psychophysical Testing of Subjects

Example:
Show gratings w/ differen spatial frequencies

Gradients/Motion
Trilobite Visual System

- Most ancient known visual system.
- Compound eye with single crystal for each lens.

Good trilobite eye info at: http://www.aloha.net/~smgon/eyes.htm

Stomatopod eyes

- Dumb bell shaped, compound eyes
- Stereo vision with just one eye;
- Each eye is up on a stalk, with a wide range of motion;
- Stomatopods have up to 16 visual pigments stomatopods can also see ultra-violet and infra-red light, and some can even see polarized light.
- See http://www.ucmp.berkeley.edu/aquarius/

Context: Whose faces do you see?