

Edges

Computer Vision I CSE252A Lecture 10

CS252A, Winter 2004

Computer Vision I

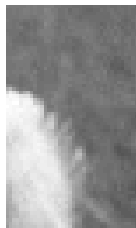
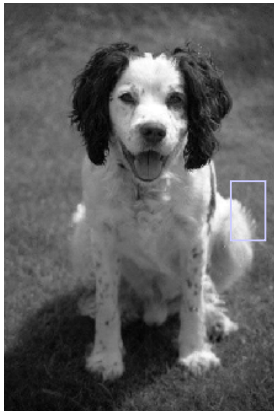
Physical causes of edges

1. Object boundaries
2. Surface normal discontinuities
3. Reflectance (albedo) discontinuities
4. Lighting discontinuities

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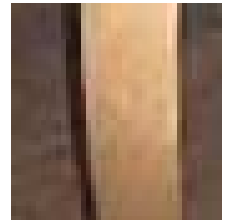
Object Boundaries



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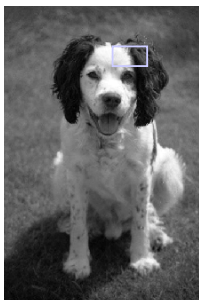
Surface normal discontinuities



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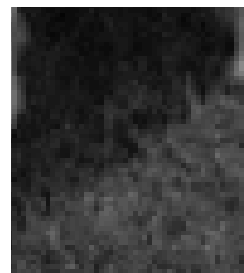
Boundaries of materials properties



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Boundaries of lighting



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Edge is Where Change Occurs 1-D

- Change is measured by derivative in 1D
 - Biggest change, derivative has maximum magnitude
 - Or 2nd derivative is zero.

