

Cognitive Science Brown Bag Series presents

Be it resolved ...
What is an image and how can it be improved?

Speaker: Prof. Steven Shore
IUSB Dept. of Physics and Astronomy

Date: Friday, March 28th
Time: 12:30pm
Place: IUSB Student Activity Center (SAC) 225

Abstract

How can you read a license plate from orbit? How do you find a polar bear in a snow storm? How do you correct the images of an astronomical satellite mirror that has the wrong surface? How does the eye form an image and is it really the same as a camera? The topic of this talk will be what an image is and how, once digitized, you can correct for the artifacts introduced by the medium through which the light passes. Along the way, I'll review some of the modern developments in image processing and reconstruction that have been pioneered in astronomical contexts and what we've learned through them about visual perception. Finally, to highlight how this all works, I'll discuss the work that successfully corrected the flaws in the optics of the Hubble Space Telescope and its instruments.



**Cognitive Science
at IUSB**



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