EECE 4353 Image Processing

Lecture Notes: Image Blending and Compositing

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Image Compositing via Resolution Pyramids

Place the Dendrobates Azureus in front of Stonehenge.

Left: Blue Poison Dart Frog (Dendrobates Azureus) in the Frankfurt Zoo, Germany, by Wikimedia contributor, Quartl.
Right: Stonehenge from the north, by Gaerth Wiscombe, http://flickr.com/photos/10173199@N03/1071477228.

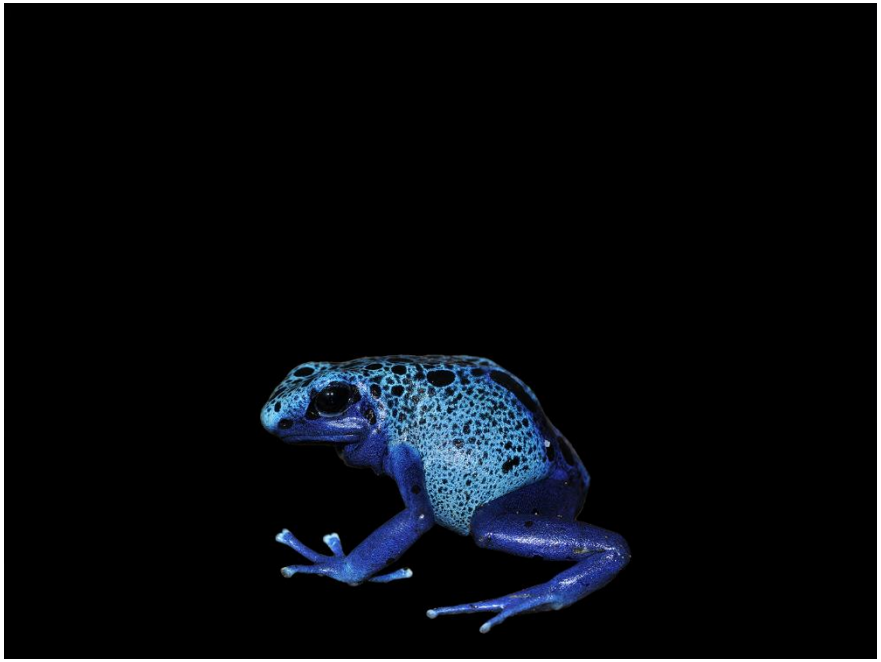
Image Compositing via Resolution Pyramids

Resize the foreground image and place it in a zero image the same size as the background image.

Image Compositing via Resolution Pyramids

Create a binary mask to extract the foreground object and to zero out the corresponding area in the background.

Image Compositing via Resolution Pyramids



Apply the masks

Image Compositing via Resolution Pyramids

This is a simple overlay of the frog on the Stonehenge image.

Image Compositing via Resolution Pyramids

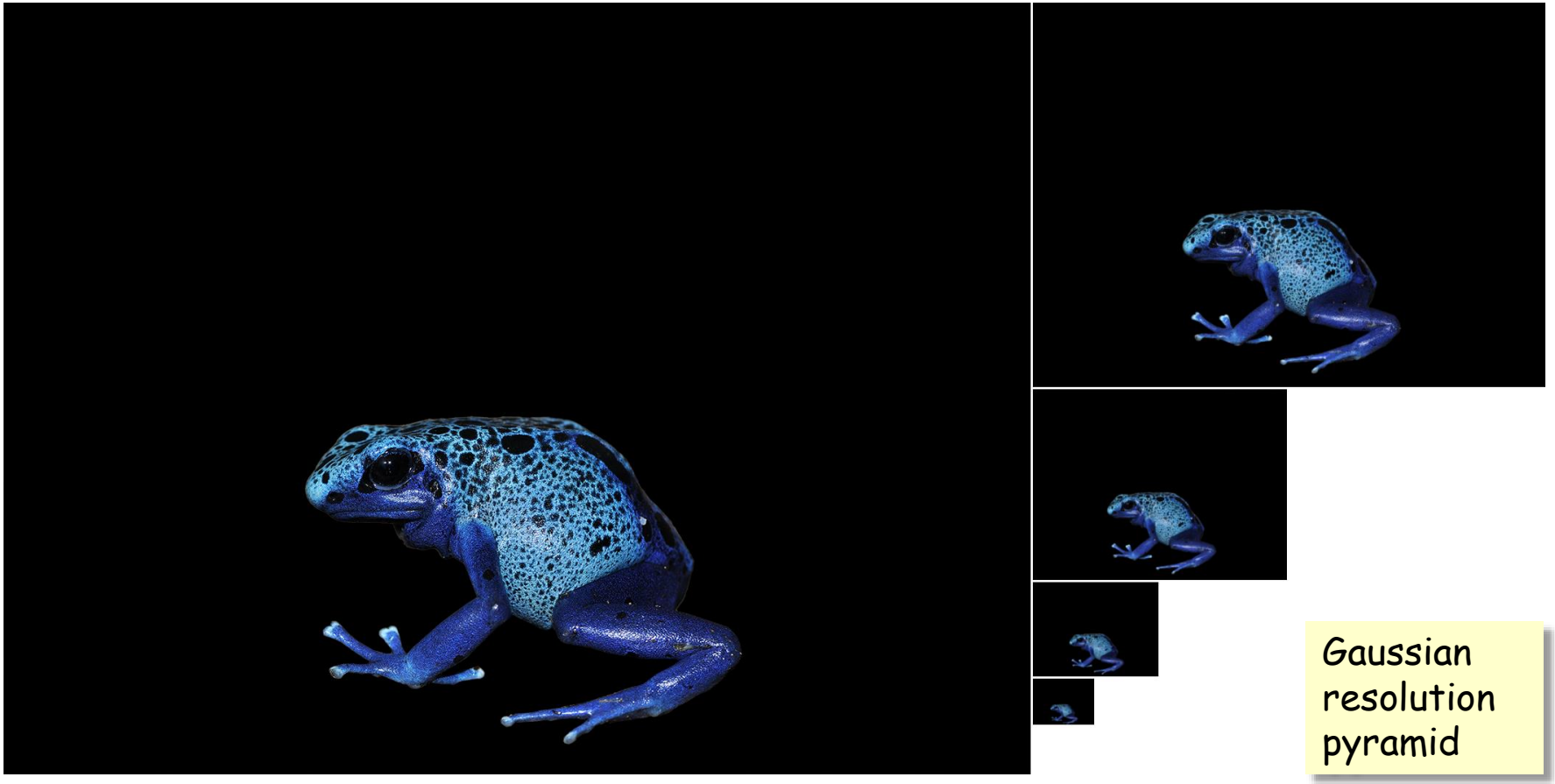


Image Compositing via Resolution Pyramids

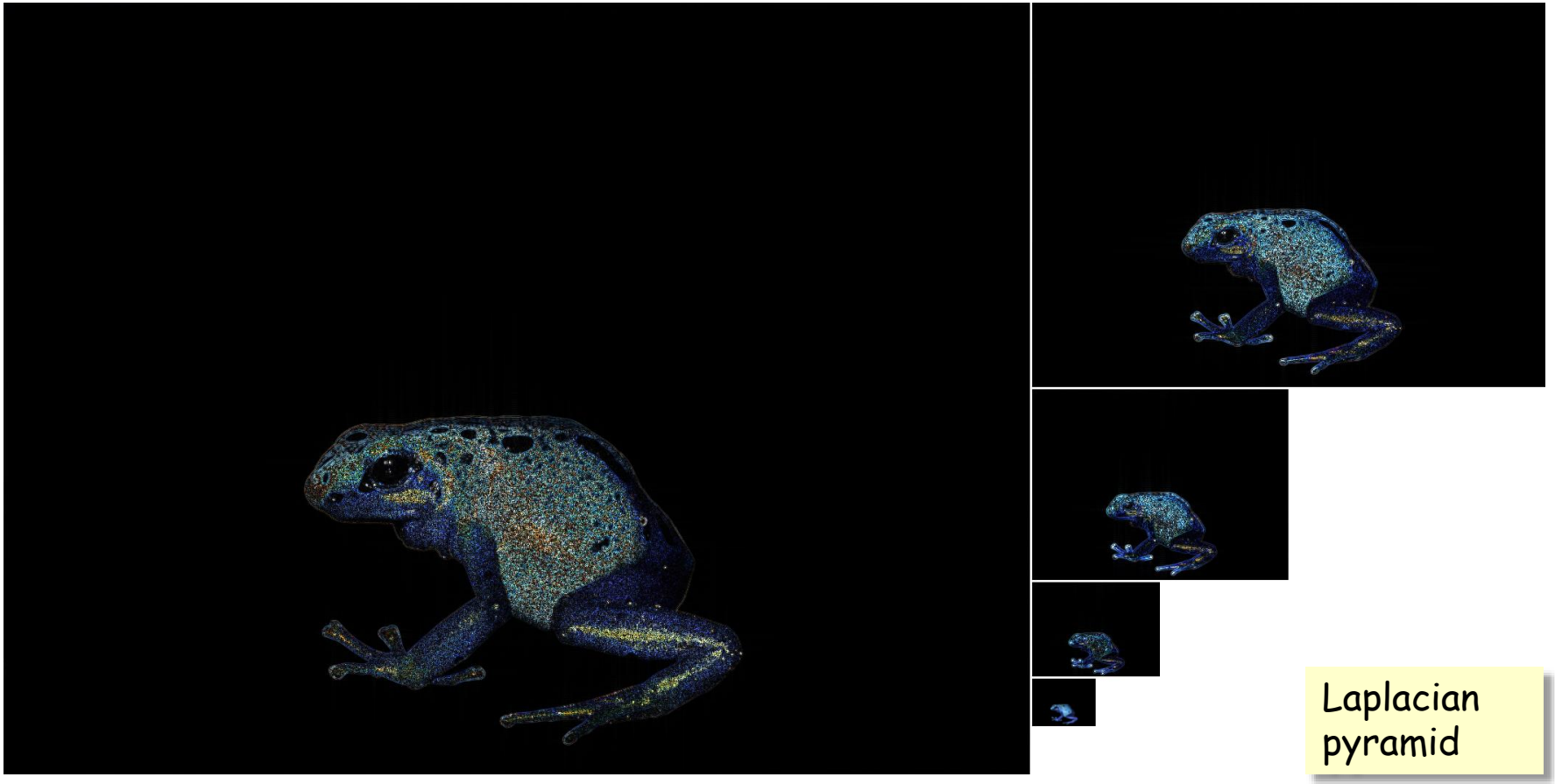


Image Compositing via Resolution Pyramids

Gaussian resolution pyramid

Image Compositing via Resolution Pyramids

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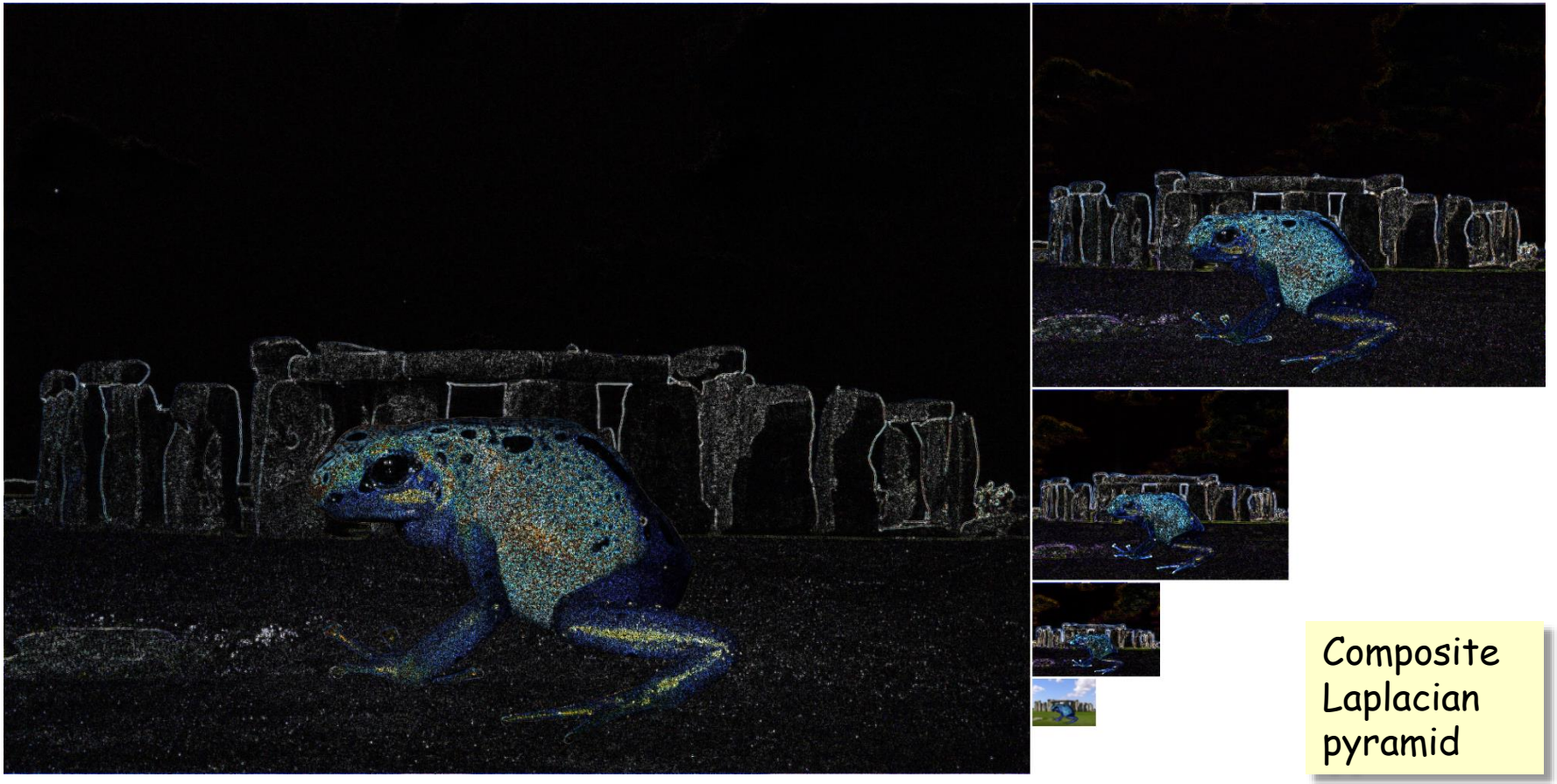

Composite Laplacian pyramid

Image Compositing via Resolution Pyramids

Image Compositing via Resolution Pyramids

Final composite image.

Image Compositing via Resolution Pyramids

Simple overlay.