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Poster presentation preferred

A RARITY-BASED VISUAL ATTENTION MAP
- APPLICATION TO TEXTURE DESCRIPTION –

This presentation deals with a simple and "pre-cortical" visual attention model, which does not take image directions into account. We compute rarity-based saliency maps and then we describe the relation between texture and visual attention. Finally we decompose the image into several textures with different regularities. Our purpose is to compress textures into images using small repeating patterns.

Two parts will be detailed in this presentation:

- Our biologically-motivated and rarity-based saliency map. We think that the low-level attention is log-inversely related to a group of pixels rarity into an image.
- The relation between visual attention and texture. We will show that our low-level approach of saliency is able to provide middle level information about the texture regularity in an image.

A demonstration of the use of our saliency map in texture coding using repeating patterns can be done.