1077-68-1967

Josh Koslosky, Stacey Levine and Glenn Sidle^{*} (sidleg@duq.edu), 440 College Hall, Department of Mathematics & Computer Science, Duqusne University, Pittsburgh, PA 15282. *Image Fusion Using Gaussian Mixture Models.* Preliminary report.

In recent years, many image processing tasks such as denoising, inpainting, and deblurring have been solved by finding optimal sparse image representations in a (possibly redundant) dictionary. Yu, Sapiro, and Mallat have shown that related representations can be found using Gaussian Mixture Models (GMMs). In this talk we demonstrate how the GMM approach can easily be applied to solve the image fusion problem, and compare some of its results to those using sparse and redundant image representations. (Received September 21, 2011)