

Multidimensional amplitude-modulation frequency-modulation (AM-FM) models allow us to describe continuous-scale modulations in digital images. AM-FM models have led to a wide range of applications ranging from image and video compression, video image segmentation, to image retrieval in digital libraries. We present new, two-dimensional algorithms that provide significant improvements in both accuracy and speed over previously reported non-parametric approaches. Results are shown for both real and synthetic images.