Self similarity and spectral correlation adaptive algorithm for image interpolation

Antoni Buades
Universitat Illes Balears, Spain
toni.buades@uib.es

Most common cameras use a CCD sensor device measuring a single color per pixel. The other two color values of each pixel must be interpolated from the neighboring pixels in the so-called demosaicking process. Recent devices include also grey level sensors in order to increase the signal to noise ratio. These recent devices get closer to the satellite acquisition systems, where the color and luminance information are acquired separately, and with different resolutions; a high-resolution luminance image and a low-resolution multispectral one.
In this talk, I will review classical solutions to these two different interpolation problems and present new algorithms.

Joint work with J. Duran (Universitat Illes Balears, Spain).