Recovering High Dynamic Range Multispectral Radiance Maps

by Paul Rosen

High dynamic range imaging is a powerful technique for improving realism of captured scenes. The limited ability of photographic equipment to capture images of the scene with extreme contrast is overcome by taking additional photographs with varied exposure times. By simply extending this principal to color, and applying spectral bandpass filters to an RGB camera, with know spectral responses, a more vivid view of the world can be forged. This is a work in progress and I will therefore be presenting the basic principals of this technique and show some preliminary results.