ADVANCED IMAGE PROCESSING FOR FLUORESCENCE MICROSCOPY

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ABSTRACT
The goal of this presentation is to give an update on advanced image processing techniques for biomicroscopy. In particular, we discuss efficient wavelet-based algorithms for image denoising (Surelet) and 3-D deconvolution (Deconvlab). We also present specific methods for tracking of fluorescent particles (SpotTracker), cell segmentation using active contours (Snakuscule, Ovuscule, E-snake) and feature extraction.

The described imaging software is available as Plugins for ImageJ at:
http://bigwww.epfl.ch/algorithms.html

Selected references