

Abstract Submitted  
for the MAR15 Meeting of  
The American Physical Society

**A Novel Method of Line Detection using Image Integration**

**Method** DANIEL LIN, BO SUN, Oregon State University — We developed a novel line detection algorithm based on image integration method. Hough Transformation uses spatial image gradient method to detect lines on an image. This is problematic because if the image has a region of high noise intensity, the gradient would point towards the noisy region. Denoising the noisy image requires an application of sophisticated noise reduction algorithm which increases computation complexity. Our algorithm can remedy this problem by averaging the pixels around the image region of interest. We were able to detect collagen fiber lines on an image produced by confocal microscope.

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Date submitted: 14 Nov 2014

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