

Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-42-1493 **Kyunglim Nam*** (knam@math.uga.edu), The University of Georgia, Department of Mathematics, Boyd GRSC, Athens, GA 30602. *Box Spline Tight Wavelet Frames for Edge Detections*. Preliminary report.

By applying easy constructive methods [Lai & Stöckler], tight wavelet frames for bivariate box splines on a three, four and eight direction mesh satisfying the sub-QMF condition are constructed. We apply box spline tight wavelet frames to images for detecting edges. Then we provide the numerical evidence that box spline tight wavelet frames give better edge detection of smooth curve edges than standard wavelets and Laplace methods. (Received October 06, 2004)