

Meeting: 1004, Bowling Green, Kentucky, SS 5A, Special Session on Advances in the Study of Wavelets and Multi-wavelets

1004-42-116 **Ming-Jun Lai** (mjlai@math.uga.edu), Dept. of Mathematics, University of Georgia, Boyd GRSC, Athens, 30602-7403, and **Kyunglim Nam*** (knam@math.uga.edu), Department of Mathematics, University of Georgia, Boyd GSRC, Athens, 30602-7403. *Tight Wavelet Frame Construction over Bounded Domains*. Preliminary report.

We show how to construct tight framelets over bounded intervals using a direct approach based on matrix transform. Then we extend our method to any bounded domain in the multivariate setting. We will present some examples of tight wavelet frames over bounded domains. (Received January 20, 2005)