Meeting: 1000, Albuquerque, New Mexico, SS 10A, Special Session on Multiscale Methods and Sampling in Time-Frequency Analysis

1000-42-83　　　　　　**Xiaoping Shen*** (`shen@math.ohiou.edu`), Department of Mathematics, Ohio University, Athens, OH 45701. *The Periodic Slepian Wavelets.* Preliminary report.

In this talk, we will introduce a new multiscale system—the periodic Slepian wavelets. After a brief review about the Slepian functions and Slepian wavelet systems, we describe the method used to construct the new periodic system and its associated multiresolution analysis. We then explore some desirable properties that distinguish this system from many other periodic systems. (Received August 17, 2004)