1000-42-134   **Kathy D. Merrill*** (`kmerrill@coloradocollege.edu`), 44281 Road L, Mancos, CO 81328.
Wavelet examples built from redundant filter systems.

A method developed by Baggett, Courter, Jorgensen, Merrill and Packer mimics classical techniques to build frame wavelets from generalized filters not associated with multiresolution analyses. We will present examples constructed using this method that have interesting properties, such as a frame wavelet associated with the Journe multiplicity function (for dilation by 2 in $L^2(\mathbb{R})$)that has a C^∞ Fourier transform. (Received August 22, 2004)