

1106-R5-2624 **David W Roach*** (droach@murraystate.edu), Faculty Hall 6C1-9, Murray State University,
Murray, KY 42071. *Teaching wavelets to a freshman.*

In this talk, I will share a summary of the content that I used to teach wavelets to a freshman who was wanting to do an undergraduate research project. In this effort, I wanted to avoid making wavelets a mysterious black box, but instead provided illustrations of refinability, the cascade algorithm, orthogonal functions, and periodic extensions to give wavelets a concrete framework. This more heuristic development can be achieved without Fourier Transforms, Multiresolution Analysis, Spectral Factorization, and Trigonometric Polynomials. I will conclude with some topics that the student is exploring. (Received September 16, 2014)