

1046-YY-1962 **Colm Mulcahy*** (colm@spelman.edu). *An Image Compression Introduction to Wavelets.*

Since the mid 1990s, inspired by Tony DeRose *et al* at the University of Washington, I've utilized an elementary approach to image compression using Haar wavelets with independent study students at Spelman College as a way to motivate key concepts in linear algebra and also expose them to modern applications of mathematics in fields such as image processing and computer graphics. Matlab is used and students respond positively to being able to manipulate their own digital images within a week or two of starting on the project. The traditional attack on wavelets, using advanced Fourier methods, is entirely circumvented, and the linear algebra approach also points to more advanced and more practical generalizations of the Haar wavelets. (Received September 16, 2008)