1067-Y5-1901   **Cristen Bonz*** (`cmbonz@stthomas.edu`), 1897 St Clair Ave #2, Saint Paul, MN 55105, **Elizabeth Motz** (`eamotz@stthomas.edu`), University of St Thomas, Mail 0296, 2115 Summit Ave, Saint Paul, MN 55105, and **Susan Ray** (`slray@stthomas.edu`), 2111 Selby Ave Apt #1, Saint Paul, MN 55105. *Multiwavelets and Image Compression.*

Image compression allows for a decrease in the amount of necessary storage space from the usual 8 bits per pixel. In this project, a multiwavelet packet transformation is used as part of a compression routine for a class of homogeneous images. Specifically, we work with satellite images. These files are extremely large and consist of several channels. We will describe the compression algorithm and in particular, the significant role spectral density analysis plays in developing an optimal multiwavelet packet transformation. Examples of the algorithm will be included throughout the presentation. (Received September 22, 2010)