1023-F5-1582   **Troy Henderson*** (`troy.henderson@usma.edu`), Department of Mathematical Sciences, United States Military Academy, West Point, NY 10996. *Using Frames to Provide Repetitiously Repetitive Redundancy in Signal Processing.*

Frames have recently become a popular tool in signal processing. Frames provide a method of transforming a collection of data into a larger collection which contains an arbitrary level of redundancy. Specific applications for the use of redundancy include signal classification, data recovery, and signal authentication (among others). We will discuss fundamentals of frames as well as specific examples of using frames in the aforementioned applications. We will demonstrate how linear algebra can be used to perform many of the analysis tasks involving frames. (Received September 26, 2006)