Melvin A Nyman* (nyman@alma.edu), Department of Mathematics & Computer Science, Alma College, 614 W. Superior St., Alma, MI 48801, and John Berry, Douglas A Lapp and Dennis St. John. Eigenvalues and eigenvectors – helping students see what they do.

We have found that for many undergraduate students in linear algebra eigenvalues and eigenvectors are difficult concepts. Our investigations have indicated very weak connections between eigenvalues and eigenvectors, and other topics in linear algebra. We will discuss some visual approaches that we believe can enhance student understanding of these important ideas and their applications. (Received September 22, 2009)