

1106-G1-1556 **Philip Joseph Lombardo*** (plombardo@sjcny.edu). *GeoGebra and Linear Algebra*. Preliminary report.

Viewing 2×2 matrices as transformations of \mathbb{R}^2 allows us to visualize and explore important topics in linear algebra. In this talk, I present some of these visualizations using the free and accessible program GeoGebra. Topics include the range and kernel of a linear transformation, discovery of eigenvalues, and the connection between determinants and area. Time permitting, I will discuss GeoGebra 5.0 beta, that allows us to explore the same topics in \mathbb{R}^3 . (Received September 14, 2014)