

1014-U1-294 **Deane E, Arganbright*** (arganbright@math.kaist.ac.kr), Department of Mathematics,
Korea Advanced Inst. of Science & Technology, 305-701 Daejeon, South Korea. *Animated
Spreadsheet Demonstrations for Linear Algebra.*

In this presentation, we illustrate the creation of effective eye-catching and instructionally valuable demonstrations of a wide range of topics in an introductory linear algebra course through the popular spreadsheet program Microsoft Excel. Using its powerful graphic capabilities and interactive matrix functions, we demonstrate some innovative animated visualization models and discuss their usage for the study of linear algebra. We draw our examples from such topics as bases, linear transformations, eigenvalues and eigenvectors, quadratic forms, matrix operations, solutions of linear systems, numerical linear algebra, and applications. (Received September 06, 2005)