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Brandy A. Benedict* (brandy.benedict@merrimack.edu), Department of Mathematics - N5, Merrimack College, 315 Turnpike Street, North Andover, MA 01845. *Active Learning in the Linear Algebra Classroom Using Sage.*

As a free, open-source alternative to proprietary software, Sage provides a powerful and easily accessible way to perform numeric and symbolic calculations and generate 2- and 3-d plots. In this talk I will discuss how I use Sage to illustrate linear algebra concepts in an active learning environment. During lab periods, students use Sage as a tool to investigate properties of systems of equations, vectors and matrices, determinants, vector spaces, linear transformations, and eigenvalues and eigenvectors. Student feedback to this method of instruction will be presented, as well as lessons learned. (Received September 25, 2012)