Meeting: 1003, Atlanta, Georgia, MAA CP X1, MAA General Contributed Paper Session, I

1003-X1-1434 **Karen Clark***, P.O. Box 7718, Ewing, NJ 08628, and **Thomas Hagedorn** (`hagedorn@tcnj.edu`), P.O. Box 7718, Ewing, NJ 08628. *Incorporating Software Tools into a Linear Algebra Course.*

We are the recipients of an NSF grant to incorporate software tools into our Linear Algebra course. These include ATLAST modules using Matlab, and WebWork. The ATLAST exercises cover the entire syllabus for a traditional linear algebra course and have several goals. Some provide graphics that are designed to allow students to visualize concepts that are important in the course. Other exercises present applications of linear algebra to real-world mathematical problems. The majority of these exercises require students to write explanations of what they are learning from the computer work, forcing students to internalize these concepts and express them in a meaningful way. We will discuss the results of adding laboratory sections to the course and web based homework assignments. (Received October 05, 2004)