1023-J1-389　　　　　**Lisa Townsley***, Benedictine University, 5700 College Rd, Lisle, IL 60532. *Using DERIVE to Emphasize Understanding in Linear Algebra.*

Benedictine University has used DERIVE to enhance mathematics learning since 1990. This computer algebra system (and, of course, other similar systems) is particularly useful in the linear algebra classroom. Following Gil Strang's example from his useful workshops, the presenter aims to show students how useful linear algebra can be, as well as beautiful. The presenter will examine some traditional concepts in linear algebra and show how a computer algebra system can help the student to a deeper understanding of the concept. Examples include: more focus on the modeling and interpreting of applications rather than reducing linear systems, developing an understanding of the concepts underlying regression, and helping students relate the dot product to other inner products by suppressing computation. Students with no previous DERIVE experience are able to pick up the algebra tools quickly and easily, with just one "how to" lab session. The classroom has a pc and data display unit available during the lecture, to perform computations "live". Benedictine University has facilities to offer testing in a computer lab environment, so the student can use these tools on exams as well as homework. (Received September 11, 2006)