1035-M1-41 Karsten K. Schmidt* (kschmidt@fh-sm.de), Faculty of Business and Economics, Schmalkalden University of Applied Sciences, Blechhammer, 98574 Schmalkalden, Thuringia, Germany.

*Computing the Moore-Penrose Inverse of a Matrix with a Computer Algebra System.

In this presentation Derive functions are provided for the computation of the Moore-Penrose inverse of a matrix, as well as for solving systems of linear equations by means of the Moore-Penrose inverse. Making it possible to compute the Moore-Penrose inverse easily with one of the most commonly used Computer Algebra Systems—and to have the blueprint to write such a function in other Computer Algebra Systems or in a matrix programming language such as Gauss—may promote the use of generalized inverses in the teaching of linear algebra. (Received June 13, 2007)