

ERROR ESTIMATES FOR LINEAR SYSTEMS

Abstract. Condition numbers are used to determine how accurately one can solve linear systems $Ax = b$ with a computer. This presentation will concentrate on Yang Cao and Linda Petzold's condition number and the method to estimate this condition number. Theoretical results and numerical tests for a 3×3 linear system are presented as an example for their method. The presentation includes a method to generate random points on the n -dimensional unit sphere based on the normal distribution.