MATLAB: University of California, Davis

Computer LAB for Linear Algebra Dr. Daddel

MATH 22AL LAB # 10

4 Introduction

In introductory Linear Algebra we work with real numbers only. If we replace the Real Numbers with Complex numbers almost everything will work the same. We can have a linear system with complex coefficients, matrices with complex entries, and complex vector spaces. We can find Determinant, Eigenvalues and Eigenvectors of a complex matrix.

Matlab does arithmetic of complex numbers automatically.

Objective of this section is to introduce Complex numbers in Linear Algebra. We will do this by introducing Complex numbers and its arithmetics, then few examples of using complex numbers in Linear Algebra, will follow by few new definitions related to complex matrices.