

Lab-05

1. Write a MATLAB program that implements Jacobian transformation method for finding the eigenvalues and eigenvectors of a real symmetric matrix.
 2. Check out the program by diagonalising a 3×3 real symmetric matrix. (Use the 'eig' function in MATLAB to verify the results).
 3. Study the distribution of eigenvalues of a random real symmetric matrix (of size 50×50) whose elements are drawn from a Gaussian distribution. Use 'randn' matlab function to get Gaussian random variables. You may have to diagonalize many matrices (10 or so?) for good statistics.
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