

Chapter 04.06

Gaussian Elimination

OBJECTIVES

1. solve a set of simultaneous linear equations using Naïve Gauss elimination,
2. learn the pitfalls of the Naïve Gauss elimination method,
3. understand the effect of round-off error when solving a set of linear equations with the Naïve Gauss elimination method,
4. learn how to modify the Naïve Gauss elimination method to the Gaussian elimination with partial pivoting method to avoid pitfalls of the former method,
5. find the determinant of a square matrix using Gaussian elimination, and
6. understand the relationship between the determinant of a coefficient matrix and the solution of simultaneous linear equations.