

# Introduction

# Namespace LinearAlgebra

## Classes

### [Identity](#)

This class represents an identity matrix in linear algebra. An identity matrix is a square matrix with ones on the main diagonal and zeros elsewhere.

### [Matrix](#)

This class represents a matrix in linear algebra. A matrix is a two-dimensional array of complex numbers.

### [Operations](#)

This class contains common linear algebra operations that can be performed on matrices and vectors.

### [SparseMatrix](#)

A special representation of a [Matrix](#). A SparseMatrix stores only the non-zero elements to conserve memory and computation.

### [Vector](#)

This class represents a vector in linear algebra. A vector is a one-dimensional array of complex numbers.