Vector and matrix norms

Note: Norm can be different but if calculation does not specify the norm type use same norm format. But if norm format is specified use that type of norm.

Vectors

# Vector norms

Symbol:

## Max norm

choose max value:

## Sum norm

Sum every value

## Euclidean norm

square root of square sum of all value

# Vector norm equalities/inequalities:

## Add and sub

## Multipy

## Cauchy inequality

# Orthogonality

The N-dimensional vector orthogonal if:

Matrices

# Matrix norms

## Max norm

## Sum norm

## Frobenius norm

Note: same as Euclidian norm in vectors.

# Matrix norm equalities/inequalities

## Spectral radius

## Condition numbers: