Definition

The covariance matrix of a random vector $x : \Omega \to \mathbf{R}^d$ (on a probability space $(\Omega, \mathcal{F}, \mathbf{P})$) is the matrix whose i, jth entry is $\mathrm{cov}(x_i, x_j)$

Covariance Matrix

Multivariate Real Densities

Covariance

Probability Densities

Real Integrals

Variance

Nonnegative Integrals

Expectation

Simple Integrals

Random Variables

Real Matrices

Measurable Functions

Probability Measures

Outcome Variable Covariance

Topological Sigma Algebra

Linear Equations

Measure

Outcome Variable Expectation

Arrays

Real Vector

Topologies

Linear Functions

Sigma Algebras

Induced Probability Distributions

Plane Vector Sums and Differences

Space Vector

N Dimensional Space

Metrics

Real Series

Extended Real Numbers

Event Probabilities

Outcome Variable Events

Plane Vector

Distance

Real Square Roots

Real Limits

Probability Distributions

Real Multiplicative Inverses

Space Distance

Real Squares

Real Arithmetic

Simple Functions

Plane Distance

Absolute Value

Outcome Probabilities

Real Additive Inverses

Real Space

Real Function

Internal Length

Real Summation

Real Products

Natural Square Roots

Intervals

Real Plane

Square Numbers

Real Line

Real Order

Real Sums

Rational Arithmetic

Rational Multiplicative Inverses

Geometry

Square

Integral Line

Real Sequences

Real Numbers

Rational Sums

Rational Products

Lists

Sequences

Natural Summation

Natural Order

Rational Numbers

Subset Algebras

Cardinality

Direct Products

Integer Arithmetic

Inverse Elements

Set Numbers

Integer Products

Natural Additive Identity

Natural Multiplicative Identity

Finite Sets

Arithmetic

Identity Elements

Family Operation

Element Function

Uncertain Events

Equivalent Sets

Natural Equations

Comparisons

Integer Order

Integer Sums

Families

Natural Products

Function Inverse

Function Composition

Family Unions and Intersections

Orders

Equations

Integer Numbers

Natural Sums

Functions

Operations

Natural Order

Equivalence Relations

Relations

Recursion Theorem

Subset Systems

Peano Axiom

Ordered Pair Projections

Uncertain Outcomes

Ordered Pairs

Natural Induction

Characteristic Functions

Set Products

Generalized Set Duality

Natural Numbers

Set Powers

Partitions

Intersection of Empty Set

Set Dualities

Successor Sets

Unordered Triple

Set Symmetric Differences

Set Unions and Intersections

Set Intersections

Pair Unions

Set Complements

Pair Intersections

Set Unions

Set Differences

Empty Set

Unordered Pair

Set Specification

Set Equality

Set Inclusion

Deductions

Quantified Statements

Logical Statements

Statements

Sets

Identities

Names

Letters

Objects