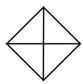
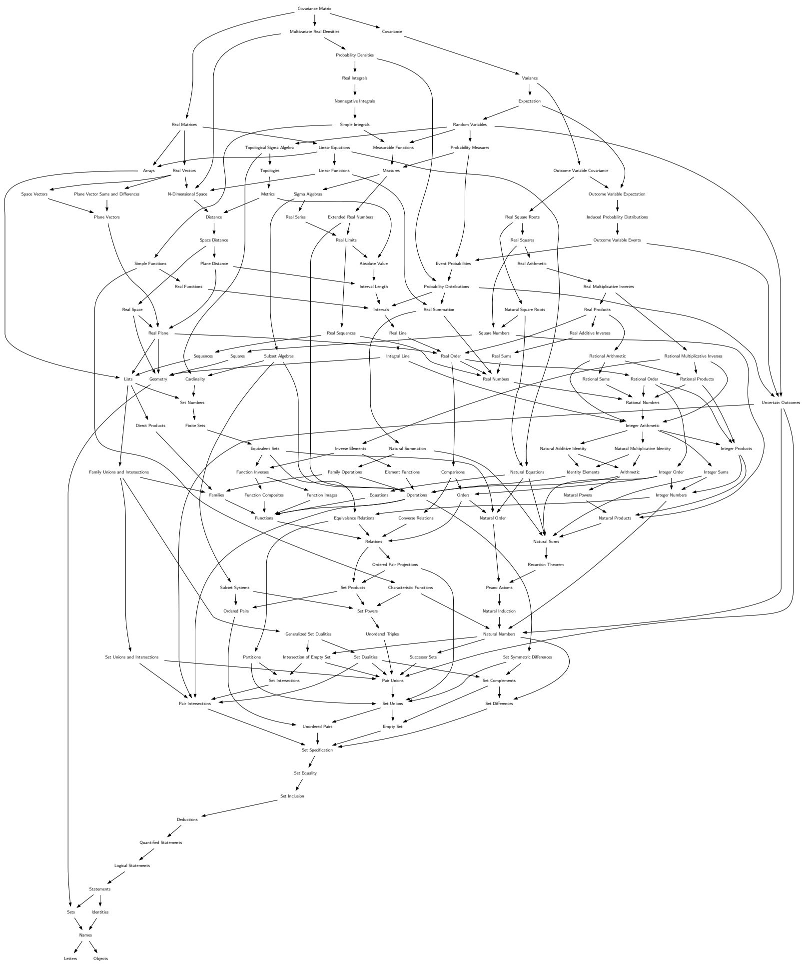


Definition

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 $\operatorname{cov}(x_i, x_j)$


Covariance Matrix
Multivariate Real Densities
Covariance
Probability Densities
Real Integrals
Variance
Nonnegative Integrals
Expectation
Real Matrices
Simple Integrals
Random Variables
Topological Sigma Algebra
Linear Equations
Measurable Functions
Probability Measures
Arrays
Real Vectors
Topologies
Linear Functions
Measures
Outcome Variable Covariance
Space Vectors
Plane Vector Sums and Differences
N-Dimensional Space
Metrics
Sigma Algebras
Outcome Variable Expectation
Plane Vectors
Distance
Real Series
Extended Real Numbers
Real Square Roots
Induced Probability Distributions
Space Distance
Real Limits
Real Squares
Outcome Variable Events
Simple Functions
Plane Distance
Absolute Value
Event Probabilities
Real Arithmetic
Real Functions
Interval Length
Probability Distributions
Real Multiplicative Inverses
Real Space
Intervals
Real Summation
Natural Square Roots
Real Products
Real Plane
Real Sequences
Real Line
Square Numbers
Real Additive Inverses
Sequences
Squares
Subset Algebras
Integral Line
Real Order
Real Sums
Rational Arithmetic
Rational Multiplicative Inverses
Lists
Geometry
Cardinality
Real Numbers
Rational Sums
Rational Order
Rational Products
Set Numbers
Rational Numbers
Uncertain Outcomes
Direct Products
Finite Sets
Integer Arithmetic
Equivalent Sets
Inverse Elements
Natural Summation
Natural Additive Identity
Natural Multiplicative Identity
Integer Products
Family Unions and Intersections
Function Inverses
Family Operations
Element Functions
Comparisons
Natural Equations
Identity Elements
Arithmetic
Integer Order
Integer Sums
Families
Function Composites
Function Images
Equations
Operations
Orders
Natural Powers
Integer Numbers
Functions
Equivalence Relations
Converse Relations
Natural Order
Natural Products
Relations
Natural Sums
Ordered Pair Projections
Recursion Theorem
Subset Systems
Set Products
Characteristic Functions
Peano Axioms
Ordered Pairs
Set Powers
Natural Induction
Generalized Set Dualities
Unordered Triples
Natural Numbers
Set Unions and Intersections
Partitions
Intersection of Empty Set
Set Dualities
Successor Sets
Set Symmetric Differences
Set Intersections
Pair Unions
Set Complements
Pair Intersections
Set Unions
Set Differences
Unordered Pairs
Empty Set
Set Specification
Set Equality
Set Inclusion
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Letters
Objects