Why

TODO

Definition

The *ith marginal density* of a multivariate density is the density obtained by integrating over every component with a particular component fixed.

Similalry the i, jth *marginal density* of a multivariate density is the density obtained by integrated over every component with the i and jth components fixed.

Notation

Let $f : \mathbf{R}^d \to \mathbf{R}$ be a density. For $i = 1, \ldots, d$, let $f_i : \mathbf{R} \to \mathbf{R}$ be defined by

$$f(\xi) = \int_{\left\{x \in \mathbf{R}^d \middle| x_i = \xi\right\}} f$$

for each $\xi \in \mathbf{R}$, Then f_i is the ith marginal density of f.


Marginal Densities
Multivariate Real Densities
Probability Densities
N-Dimensional Space
Real Integrals
Distance
Nonnegative Integrals
Simple Integrals
Measurable Functions
Measures
Sigma Algebras
Extended Real Numbers
Real Limits
Space Distance
Simple Functions
Absolute Value
Plane Distance
Real Functions
Interval Length
Probability Distributions
Intervals
Real Line
Real Plane
Real Space
Real Summation
Real Sequences
Integral Line
Real Order
Real Numbers
Geometry
Rational Numbers
Sequences
Integer Arithmetic
Direct Products
Set Numbers
Natural Multiplicative Identity
Natural Additive Identity
Finite Sets
Natural Summation
Identity Elements
Arithmetic
Subset Algebras
Natural Powers
Integer Products
Equivalent Sets
Set Operations
Family Operations
Function Inverses
Family Unions and Intersections
Algebras
Integer Sums
Natural Products
Operations
Natural Sums
Integer Numbers
Families
Function Composites
Function Images
Recursion Theorem
Equivalence Relations
Functions
Natural Order
Cardinality
Peano Axioms
Relations
Subset Systems
Cartesian Products
Characteristic Functions
Uncertain Outcomes
Natural Induction
Ordered Pairs
Set Powers
Natural Numbers
Generalized Set Dualities
Set Symmetric Differences
Unordered Triples
Successor Sets
Set Dualities
Intersection of Empty Set
Partitions
Set Unions and Intersections
Pair Unions
Set Intersections
Set Complements
Set Differences
Set Unions
Pair Intersections
Unordered Pairs
Empty Set
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects