Definition

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

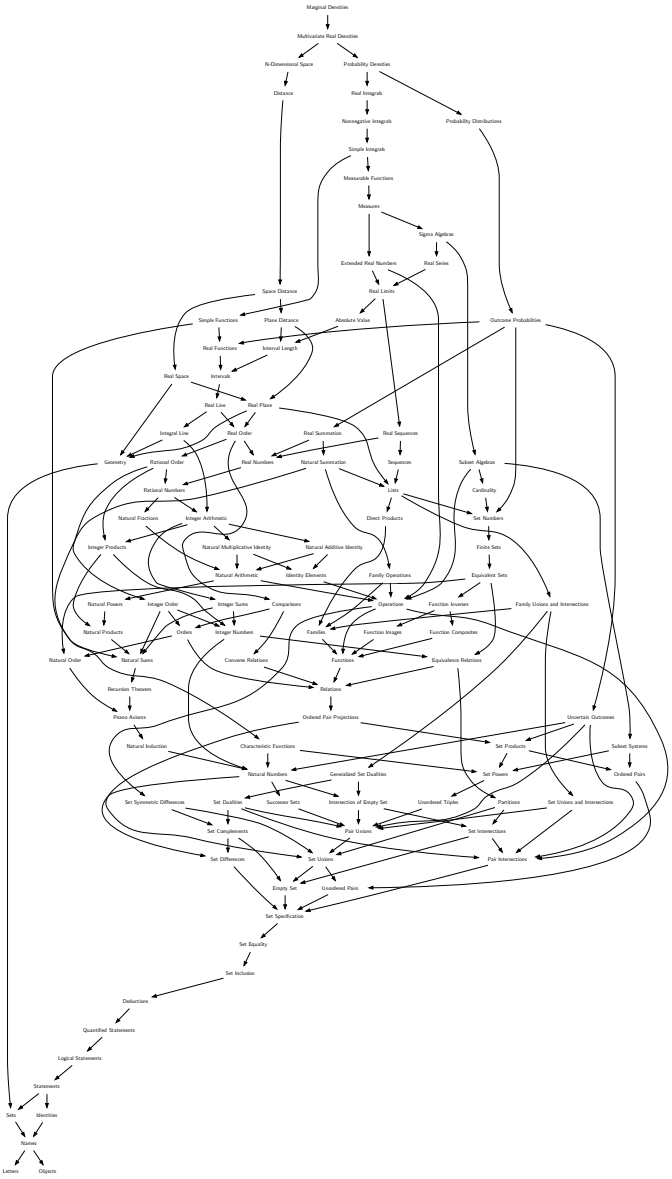
Similalry the *i, jth marginal density* of a multivariate density is the density obtained by integrated over every component with the i and jth components fixed.

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

$$f(\xi) = \int_{\{x \in \mathbf{R}^d \mid x_i = \xi\}} f$$

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


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