Definition

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

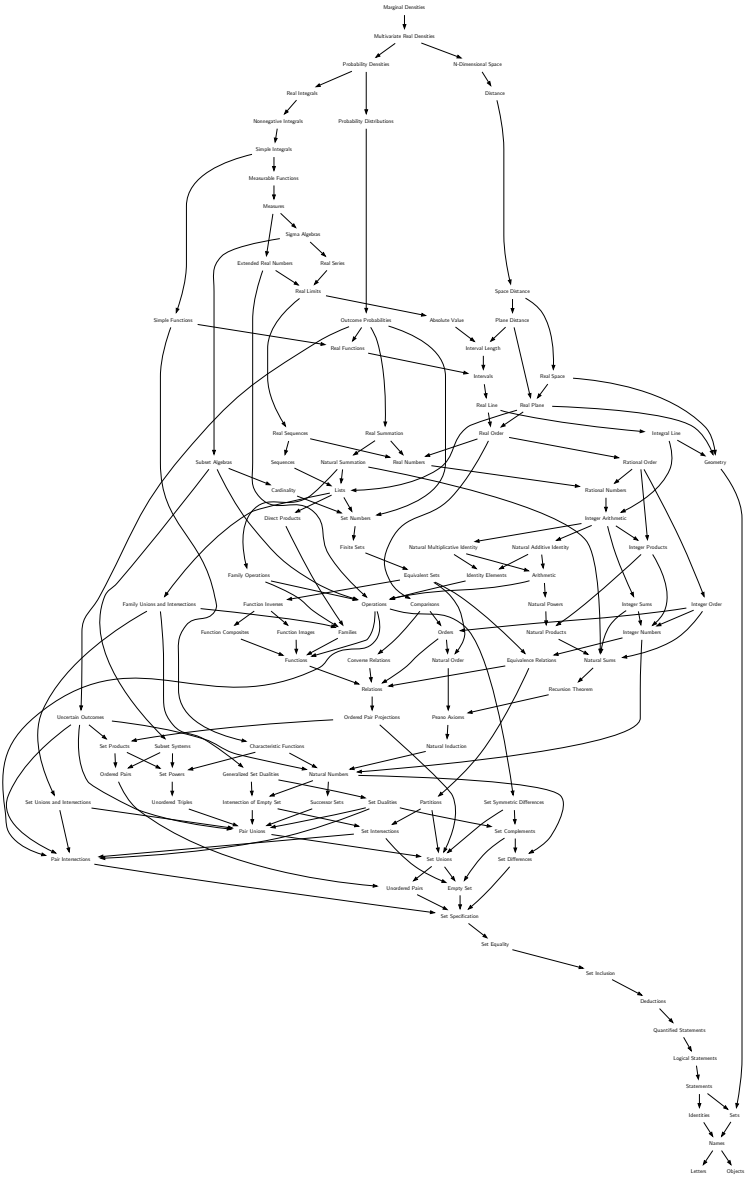
Similalry the *i, jth marginal density* of a multivariate density is the density obtained by integrated over every component with the i and jth components fixed.

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