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.

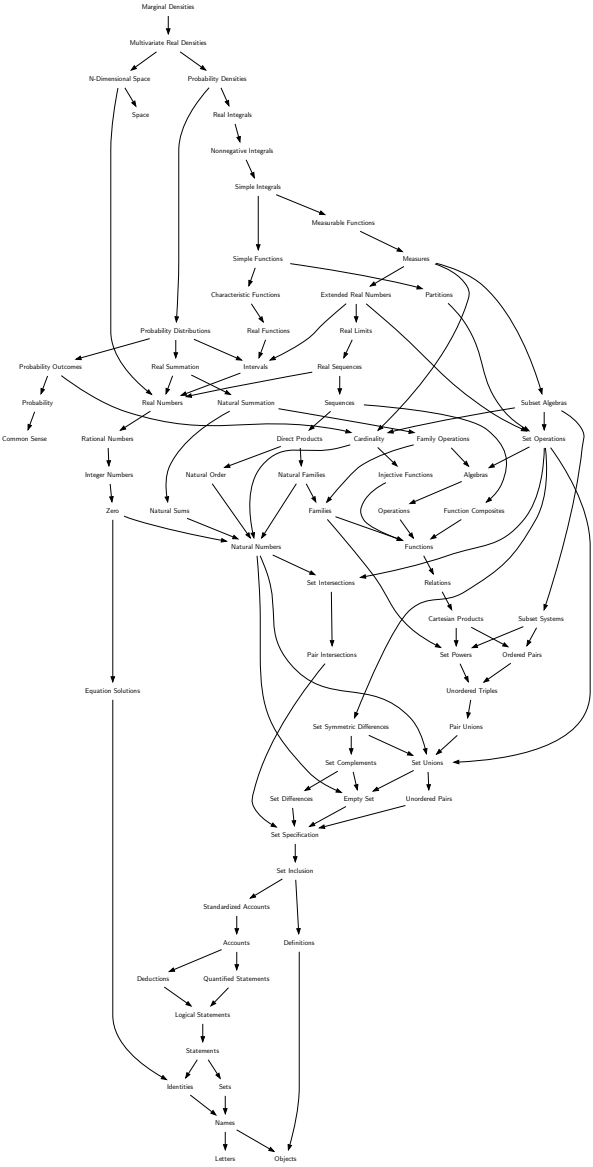
Similalry the i, jth *marginal density* of a multivariate density is the density obtained by integrated over every component with the i and jth components fixed.

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
N-Dimensional Space
Probability Densities
Space
Real Integrals
Nonnegative Integrals
Simple Integrals
Measurable Functions
Simple Functions
Measures
Characteristic Functions
Extended Real Numbers
Partitions
Probability Distributions
Real Functions
Real Limits
Probability Outcomes
Real Summation
Intervals
Real Sequences
Probability
Real Numbers
Natural Summation
Sequences
Subset Algebras
Common Sense
Rational Numbers
Direct Products
Cardinality
Family Operations
Set Operations
Integer Numbers
Natural Order
Natural Families
Injective Functions
Algebras
Zero
Natural Sums
Families
Operations
Function Composites
Natural Numbers
Functions
Set Intersections
Relations
Cartesian Products
Subset Systems
Pair Intersections
Set Powers
Ordered Pairs
Equation Solutions
Unordered Triples
Set Symmetric Differences
Pair Unions
Set Complements
Set Unions
Set Differences
Empty Set
Unordered Pairs
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Definitions
Deductions
Quantified Statements
Logical Statements
Statements
Identities
Sets
Names
Letters
Objects