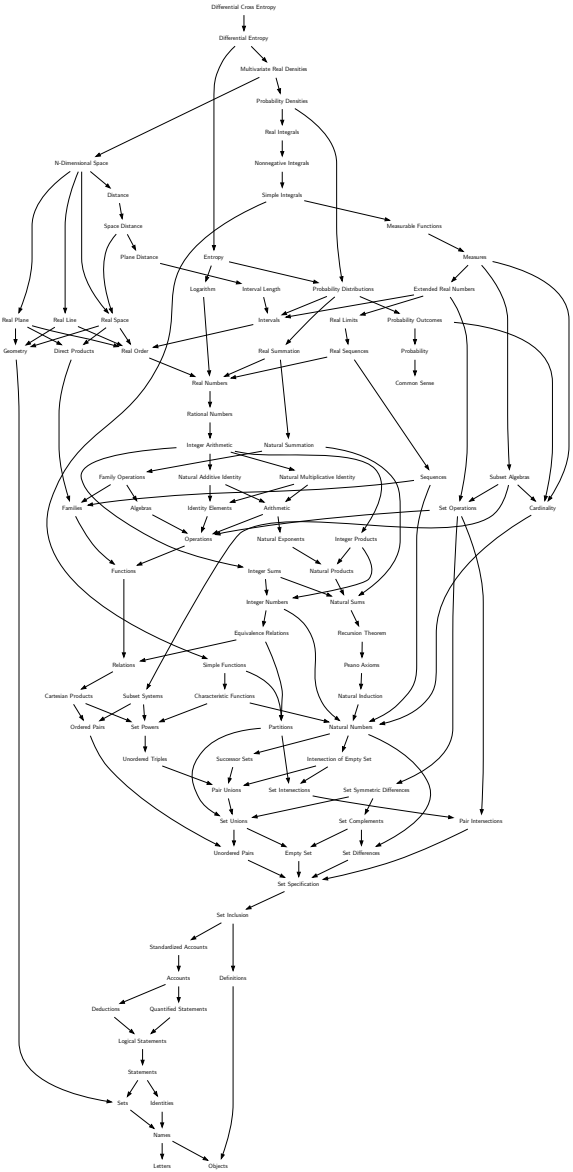
Why

Definition

The *differential cross entropy* of a second density with respect to a a first density is the integral of the second density against the negative log of the first density. Let R denote the set of real numbers. Let $f : R^n \to R$ and $g : R^n \to R$ be probability density functions. The differential cross entropy of f relative to g

$$-\int g \log f$$

We denote the differential cross entropy of f relative to g by $h(g, f)$.


Differential Cross Entropy
Differential Entropy
Multivariate Real Densities
Probability Densities
Real Integrals
N-Dimensional Space
Nonnegative Integrals
Distance
Simple Integrals
Measurable Functions
Space Distance
Plane Distance
Entropy
Measures
Logarithm
Interval Length
Probability Distributions
Extended Real Numbers
Real Plane
Real Line
Real Space
Intervals
Real Limits
Probability Outcomes
Geometry
Direct Products
Real Order
Real Summation
Real Sequences
Probability
Real Numbers
Common Sense
Rational Numbers
Integer Arithmetic
Natural Summation
Family Operations
Natural Additive Identity
Natural Multiplicative Identity
Sequences
Subset Algebras
Families
Algebras
Identity Elements
Arithmetic
Set Operations
Cardinality
Operations
Natural Exponents
Integer Products
Functions
Integer Sums
Natural Products
Integer Numbers
Natural Sums
Equivalence Relations
Recursion Theorem
Relations
Simple Functions
Peano Axioms
Cartesian Products
Subset Systems
Characteristic Functions
Natural Induction
Ordered Pairs
Set Powers
Partitions
Natural Numbers
Unordered Triples
Successor Sets
Intersection of Empty Set
Pair Unions
Set Intersections
Set Symmetric Differences
Set Unions
Set Complements
Pair Intersections
Unordered Pairs
Empty Set
Set Differences
Set Specification
Set Inclusion
Standardized Accounts
Accounts
Definitions
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Letters
Objects