Definition

Given $\beta \in \mathbf{R}, \theta \in \mathbf{R}^d$ the *logistic model* (the *logistic probabilistic model*) corresponding to the parameters β and θ is the function $p : X \rightarrow [0, 1]$ defined by

$$p(x) = \frac{1}{1 + \exp(-\theta^\top x - \beta)}$$

Logistic Probabilistic Models
Probabilistic Predictors
Probability Measure
Measure
Predictors
Length Measure
Sigma Algebras
Real Series
Extended Real Numbers
Event Probabilities
Real Limits
Outcome Probabilities
Absolute Value
Real Functions
Interval Length
Intervals
Real Line
Real Summation
Real Order
Size of Direct Product
Real Sequences
Natural Summation
Rational Order
Real Numbers
Number of Set Products
Sequences
Subset Algebras
Integral Line
Rational Numbers
Number of Disjoint Unions
Finite Set Examples
Lists
Cardinality
Integer Arithmetic
Natural Fractions
Set Numbers
Direct Products
Integer Products
Natural Multiplicative Identity
Natural Additive Identity
Finite Sets
Uncertain Events
Family Operations
Identity Elements
Natural Arithmetic
Equivalent Sets
Function Inverses
Integer Sums
Operations
Natural Powers
Integer Order
Comparisons
Families
Function Images
Function Composites
Family Unions and Intersections
Integer Numbers
Natural Sums
Equivalence Relations
Orders
Converse Relations
Natural Order
Functions
Recursion Theorem
Peano Axioms
Relations
Ordered Pair Projections
Uncertain Outcomes
Natural Induction
Set Products
Subset Systems
Natural Numbers
Set Powers
Generalized Set Dualities
Ordered Pairs
Set Symmetric Differences
Partitions
Intersection of Empty Set
Successor Sets
Unordered Triples
Set Dualities
Set Unions and Intersections
Set Complements
Set Intersections
Pair Unions
Set Differences
Pair Intersections
Set Unions
Empty Set
Unordered Pairs
Geometry
Set Specification
Set Equality
Set Inclusion
Deductions
Quantified Statements
Logical Statements
Statements
Sets
Identities
Names
Letters
Objects