## Why

There is a natural cumulative distribution function to associate with a set of data.

## Definition

[1]

*empirical cumulative distribution function empirical distribution function*

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[1]Future editions will include.

Empirical Cumulative Distribution Functions

Cumulative Distribution Functions

Random Variables

Measurable Functions　Probability Measures　Topological Sigma Algebras

Outcome Variables

Measure

Topological Spaces

Metrics

Sigma Algebras

Distance

Extended Real Numbers　Real Series

Space Distance

Real Limits

Absolute Value

Event Probabilities

Plane Distance

Interval Length

Probability Distributions

Real Space

Intervals

Real Sequences

Real Plane

Real Line

Sequences

Real Summation

Real Order

Integral Line

Subset Algebras

Lists

Real Numbers

Rational Order

Geometry

Set Operations

Cardinality　Set Numbers

Rational Numbers

Finite Sets

Direct Products

Natural Summation

Integer Arithmetic

Integer Products

Equivalent Sets

Family Operations

Natural Additive Identity　Natural Multiplicative Identity

Function Inverses　Family Unions and Intersections

Algebras　Comparisons　Identity Elements　Arithmetic　Integer Order　Integer Sums

Function Composites　Function Images

Families　Operations　Orders

Natural Powers　Integer Numbers

Equivalence Relations　Functions　Converse Relations

Natural Order

Natural Products

Relations

Natural Sums

Uncertain Outcomes

Subset Systems　Set Products

Recursion Theorem

Ordered Pairs

Set Powers

Peano Axioms

Unordered Triples

Natural Induction

Generalized Set Dualities

Natural Numbers

Set Unions and Intersections　Partitions　Set Symmetric Differences　Set Dualities　Intersection of Empty Set　Successor Sets

Set Intersections　Set Complements　Pair Unions

Pair Intersections　Set Unions　Set Differences

Unordered Pairs　Empty Set

Set Specification

Set Inclusion

Standardized Accounts

Accounts

Deductions

Quantified Statements

Logical Statements

Statements

Identities　Sets

Names

Letters　Objects