Why

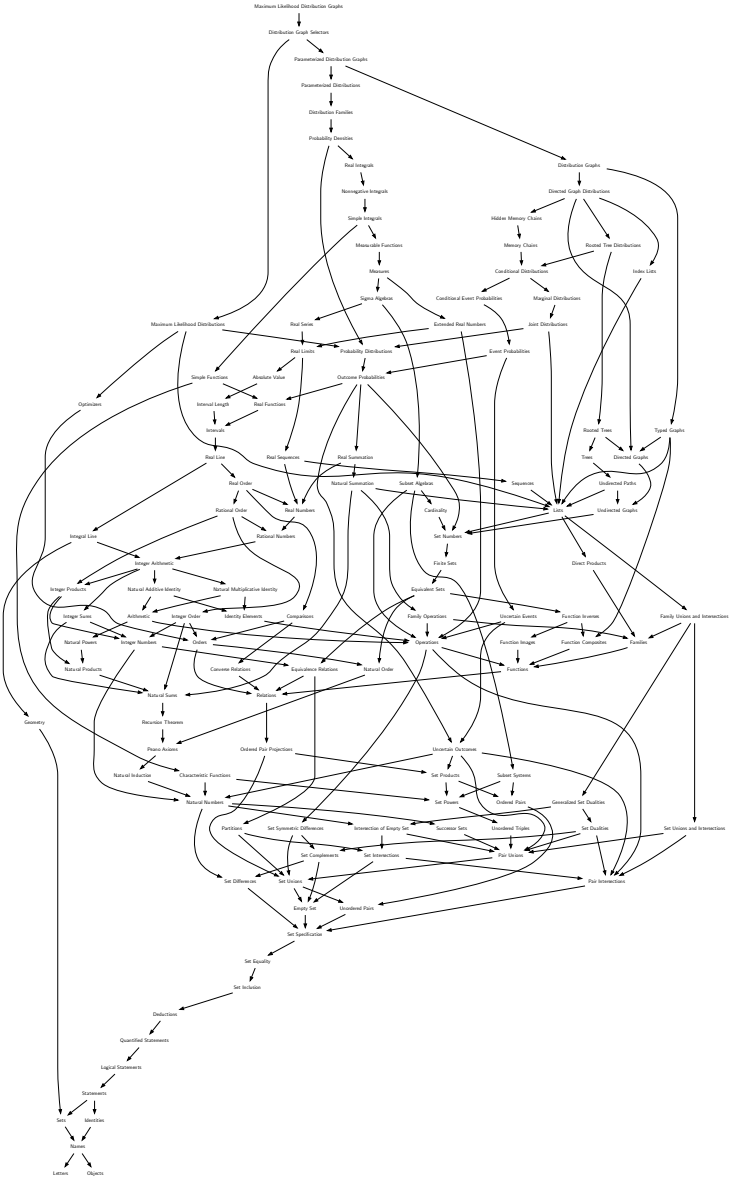
How to select distribution graphs.[1]

Definition

Let (G, A) be a typed graph on $\{1, \ldots, n\}$. Let $S \subset \{1, \ldots, n\}$. Let $x^1, \ldots, x^n$ be a dataset in $A_S = \prod_{j \in S} A_j$ (see Function Graphs). The *observation likelihood* for this dataset is the observation distribution likelihood of the dataset $\prod_{i=1}^{n} p_S(x^i)$.

A *maximum likelihood distribution graph* is one that maximizes the observation likelihood. The maximum likelihood distribution graph with respect to a parametric distribution family is the member of the family that maximizes the observation likelihood.

[1] Future editions will modify.


Maximum Likelihood Distribution Graphs
Distribution Graph Selectors
Parameterized Distribution Graphs
Parameterized Distributions
Distribution Families
Probability Densities
Real Integrals
Distribution Graphs
Nonnegative Integrals
Directed Graph Distributions
Simple Integrals
Hidden Memory Chains
Measurable Functions
Memory Chains
Rooted Tree Distributions
Measures
Conditional Distributions
Index Lists
Sigma Algebras
Conditional Event Probabilities
Marginal Distributions
Maximum Likelihood Distributions
Real Series
Extended Real Numbers
Joint Distributions
Real Limits
Probability Distributions
Event Probabilities
Simple Functions
Absolute Value
Outcome Probabilities
Optimizers
Interval Length
Real Functions
Intervals
Rooted Trees
Typed Graphs
Real Line
Real Sequences
Real Summation
Trees
Directed Graphs
Real Order
Natural Summation
Subset Algebras
Sequences
Undirected Paths
Rational Order
Real Numbers
Cardinality
Lists
Undirected Graphs
Integral Line
Rational Numbers
Set Numbers
Integer Arithmetic
Finite Sets
Direct Products
Integer Products
Natural Additive Identity
Natural Multiplicative Identity
Equivalent Sets
Integer Sums
Arithmetic
Integer Order
Identity Elements
Comparisons
Family Operations
Uncertain Events
Function Inverses
Family Unions and Intersections
Natural Powers
Integer Numbers
Orders
Operations
Function Images
Function Composites
Families
Natural Products
Converse Relations
Equivalence Relations
Natural Order
Functions
Natural Sums
Relations
Geometry
Recursion Theorem
Peano Axioms
Ordered Pair Projections
Uncertain Outcomes
Natural Induction
Characteristic Functions
Set Products
Subset Systems
Natural Numbers
Set Powers
Ordered Pairs
Generalized Set Dualities
Partitions
Set Symmetric Differences
Intersection of Empty Set
Successor Sets
Unordered Triples
Set Dualities
Set Unions and Intersections
Set Complements
Set Intersections
Pair Unions
Set Differences
Set Unions
Pair Intersections
Empty Set
Unordered Pairs
Set Specification
Set Equality
Set Inclusion
Deduction
Quantified Statements
Logical Statements
Statements
Sets
Identities
Nouns
Lenses
Objects