Why

1

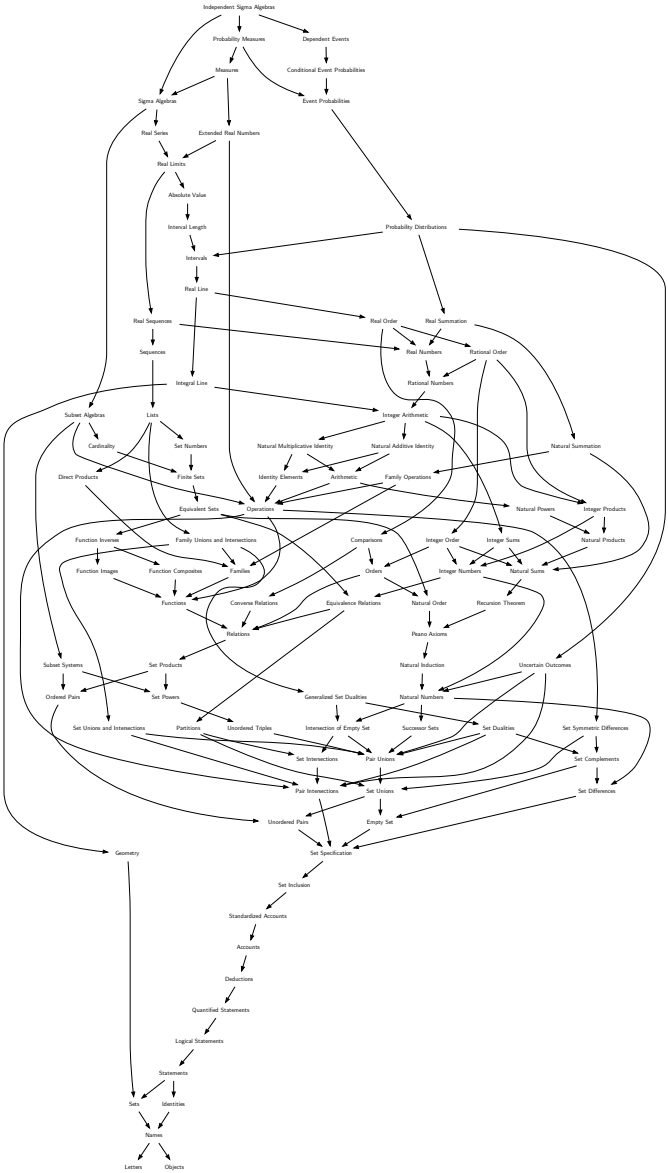
Definition

Given a probability space $(\Omega, \mathcal{F}, \mathbf{P})$, a sequence of $\mathcal{G}_1, \ldots, \mathcal{G}_n$ of sub-σ-algebras of $\mathcal{F}$, are *independent* if

$$\mathbf{P}(A_1 \cap A_2 \cap \cdots A_n) = \prod_{i=1}^{n} \mathbf{P}(A_i)$$

for any $A_1 \in \mathcal{G}_1$, $A_2 \in \mathcal{G}_2$, $\ldots$, $A_n \in \mathcal{G}_n$. A family $\{\mathcal{G}_i\}_{i \in I}$ is a family of sub-σ-algebras of $\mathcal{F}$ is *independent* if any finitely many of them are independent.

[1] Future editions will include this.


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