Definition

Consider a set of two or more random variables. Call two random variables in this set *dependent* if they are not conditionally independent, given all the other variables. Call the undirected graph induced by this relation the *conditional dependency graph* of the random variables.

Conditional Dependency Graph

Random Variables

Measurable Functions · Probability Measures

Measures · Graphs

Topological Sigma Algebra · Extended Real Numbers · Event Probabilities

Topological Spaces · Real Limits · Probability Distributions

Metrics · Real Sequences · Intervals · Real Summation · Probability Events

Distance · Subset Algebras · Sequences · Real Numbers · Natural Summation · Probability Outcomes

Length Common Notions · Set Operations · Cardinality · Direct Products · Family Operations · Rational Numbers · Probability

Injective Functions · Natural Order · Natural Families · Algebra · Integer Numbers · Common Sense

Natural Sums · Function Composites · Operations · Families · Subset Systems · Zero

Set Symmetric Differences · Natural Numbers · Functions · Power Set · Equation Solutions

Set Unions · Set Intersections · Relations · Equations

Set Complements · Ordered Pairs

Empty Set · Unordered Pairs

Set Specification

Set Inclusion

Sentences · Set Equality

Sets · Identity

Objects