# **Glossary**

## 1. Probability

Probability is a way of expressing knowledge or belief that an event will occur or has occurred.

## 2. Conditional probability

The probability of an event (A), given that another (B) has already occurred

#### 3. Posterior probability

The statistical probability that a hypothesis is true calculated in the light of relevant observations

## 4. Theorem

A general proposition not self-evident but proved by a chain of reasoning; a truth established by means of accepted truths

#### 5. Variables

A quantity that during a calculation is assumed to vary or be capable of varying in value

#### 6. Random variables

A quantity having a numerical value for each member of a group, esp. one whose values occur according to a frequency distribution

#### 7. Sample

A portion drawn from a population, the study of which is intended to lead to statistical estimates of the attributes of the whole population

## 8. Union

The set that comprises all the elements (and no others) contained in any of two or more given sets

#### 9. Intersection

The set of elements common to two or more sets

#### 10. Subset

A set of which all the elements are contained in another set

#### 11. Exhaustive event

In probability theory, a set of events is jointly or collectively exhaustive if at least one of the events must occur

## 12. Mutually exclusive event

Two events are mutually exclusive if they cannot occur at the same time.

## 13. Axiom

A statement or proposition on which an abstractly defined structure is based

#### 14. Continuous variable

A variable is a symbol that stands for a value that may vary; the term usually occurs in opposition to constant, which is a symbol for a non-varying value

## 15. Discrete variable

In probability theory and statistics, a discrete probability distribution is a probability distribution characterized by a probability mass function