

Event Independence

1 Why

todo

2 Definition

Two events are **independent** if the probability of their intersection is the product of their respective probabilities.

3 Definition

Let \mathbf{P} be an event probability function with set of outcomes A. Then the events B and C are independent if

$$\mathbf{P}(B \cap C) = \mathbf{P}(B)\mathbf{P}(C).$$