Pierre-Simon, Marquis de Laplace 23 March 1749 – 5 March 1827 was a French scholar whose work was important to the development of engineering, mathematics, statistics, physics, astronomy, and philosophy.

https://en.wikipedia.org/wiki/Pierre-Simon_Laplace



Laplace's Six Principles of Probability

- **1.Equal Probability**: If we have no reason to believe that one event is more likely to happen than another, we should assign equal probabilities to each event.
- **2.Compound Events**: The probability of a compound event (i.e., the joint occurrence of two or more events) can be calculated by multiplying the probabilities of each individual event, provided the events are independent.
- 3. Conditional Probability: The probability of an event happening, given that another event has occurred, is known as the conditional probability. It is computed by dividing the probability of the joint occurrence of both events by the probability of the event that has already occurred.
- **4.Independent Events**: Two events are considered independent if the occurrence of one event does not influence the probability of the other event.
- **5.The Law of Large Numbers**: As the number of trials increases, the observed probability of an event approaches its true probability.
- **6.Inverse Probability and Bayesian Inference**: The probability of a hypothesis, given observed evidence, can be updated using Bayes' theorem, which incorporates both prior knowledge and new data.

https://statisticalbias.com/probability/laplace_overview/