LC Introduction to Probability and Statistics Lecture Notes

MSci Physics w/ Particle Physics and Cosmology
University of Birmingham

Year 1, Semester 1
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Lectures Index

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Lecture 5 – Distributions

1   Coin Flips

Flipping a coin is one of the simplist distributions we can create.

Given:

$$P(H) = 0.5$$
$$P(T) = 0.5$$

We know that $P(HHHH) = 0.5^4$.

And $P(\text{Three Heads and One Tail}) = P(\text{HHHT or HHTH or THHH or HTHH}) = 4 \times 0.5^4$