



# The Bright Side of Mathematics

## Probability Theory – Part 1

(Stochastic, stochastic processes, statistics,...)

Probability measures

Random variables

Central limit theorem

Probability distributions

Random processes

Statistical tests

Example:



Probability of getting an even number?

$$A = \{2, 4, 6\}, \quad P(A) = \frac{1}{2}$$

$$\frac{\text{number of throws with an even outcome}}{\text{number of total throws}} \longrightarrow \frac{1}{2}$$