

## Standard Deviation

## 1 Why

TODO

## 2 Definition

The *standard deviation* of an integrable real-valued random variable is the square root of its variance.

## 2.1 Notation

Let f be an integrable real-valued random variable. Denote the standard deviation of f by std(f). We have defined it

$$\operatorname{std}(f) = \sqrt{\operatorname{var}(f)}.$$