



## 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  $\mathbf{std}(f)$ . We have defined it

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