



Why

Let us consider examples of signed measures.

Examples

Consider an integrable function defined on some measurable space. The extended-real-valued function which assigns to each distinguished set the value of the integrating the function over that set is a signed measure.

Example 1. *Suppose (X, \mathcal{A}, μ) a measure space and $f : X \rightarrow \mathbf{R}$ is an integrable function. Define $\nu : \mathcal{A} \rightarrow \mathbf{R}$ by*

$$\nu(A) = \int_A f d\mu.$$

Then ν is a signed measure.

