Random Variable Laws

1 Why

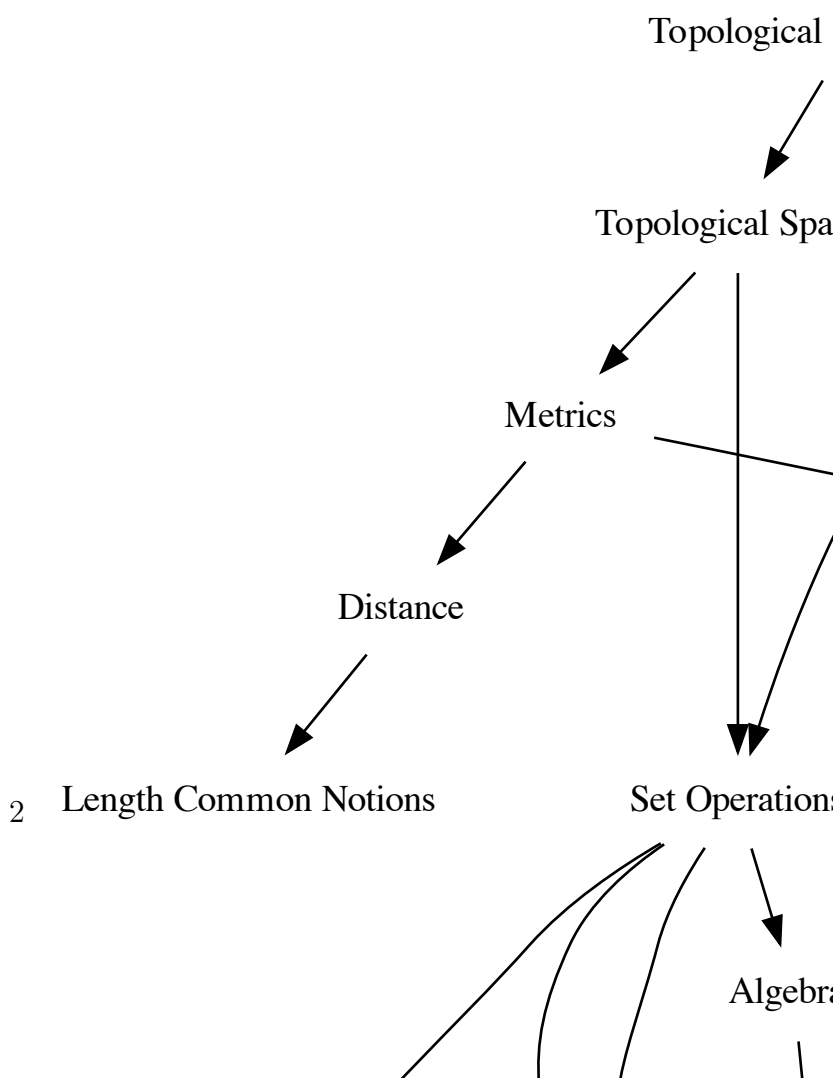
We name the image measures of real-valued random variables.

2 Definition

The *law* of a real-valued random variable, using the topological sigma algebra, is the image measure of the probability measure under the random variable Recall that

2.1 Notation

Let $(X, \mathcal{A})$ and $(Y, \mathcal{B})$ be two measurable spaces. Let $f : X \to Y$ be a random variable. Let $\mu : \mathcal{A} \to [0, \infty]$ be a probability measure. We de-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