



PROBABILITY VECTORS

Why

We can represent a probability distribution on a set of size n by a vector in \mathbf{R}^n .

Definition

Let A be a set with $|A| = n$ and let $p : A \rightarrow \mathbf{R}$ be a probability distribution on A . For $\sigma : A \rightarrow \mathbf{N}$ a numbering of A , define the vector $x_i = p(\sigma^{-1}i)$. Then $x \geq 0$ (elementwise) and $1^\top x = 1$.

