



Multivariate Real Densities

1 Why

TODO

2 Definition

A **multivariate density** or **joint density** is a function from n -dimensional real space to the real numbers which is nonnegative and and normalized. A real-valued function on n -dimensional real space is **normalized** if it integrates to 1.

3 Notation

$f : \mathbf{R}^d \rightarrow \mathbf{R}$ with $f \geq 0$ and $\int f = 1$ is a density.