

Section Measures

1 Why

Toward a theory of iterated integrals, we need to know the function measuring a section is integrable.

2 Results

Proposition 1. Let (X, \mathcal{A}, μ) and (Y, \mathcal{B}, ν) be sigma-finite measurable spaces. Let $E \in \mathcal{A} \times \mathcal{B}$. The function $x \mapsto \nu(E_x)$ is \mathcal{A} -measurable and the function $y \mapsto \mu(E^y)$ is \mathcal{B} -measurable.

Proof. TODO \Box