

Definition 0.0.1. $L_{\mathbb{P}}(W)$ denotes the class of all \mathcal{F} -progressively measurable processes γ on $(\Omega, \mathcal{F}, \mathbb{P})$ s.t.

$$\mathbb{P}\left(\int_0^T |\gamma_u|^2 \, du < \infty\right) = 1.$$