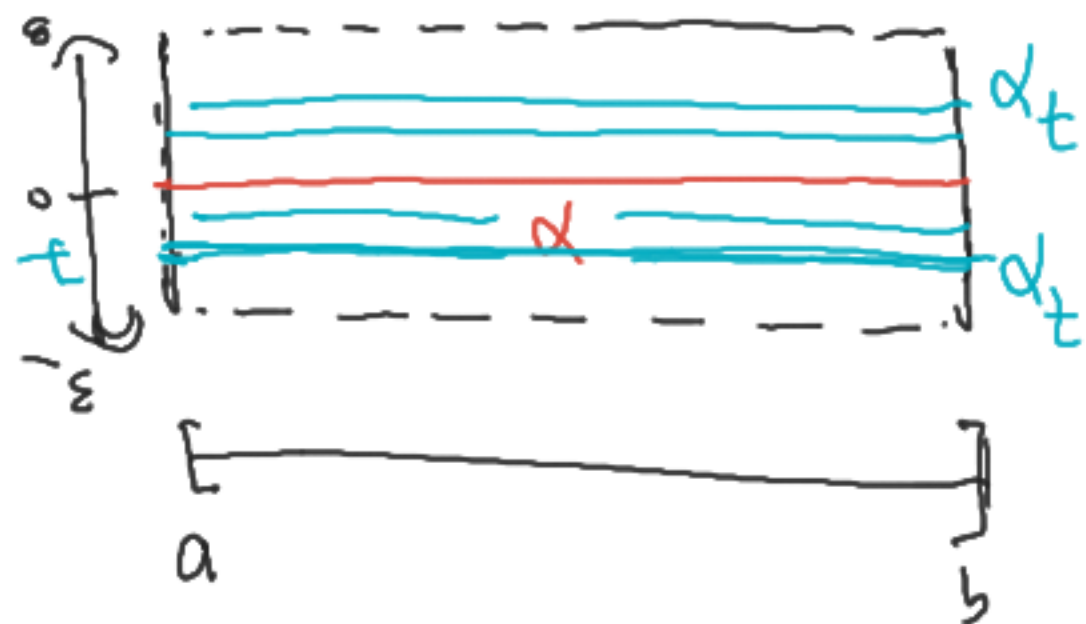


$$\pi_1: N_\delta(S) \rightarrow S$$

$$(p, t) \mapsto p$$

$$\pi_2: N_\delta(S) \rightarrow \mathbb{R}^3$$

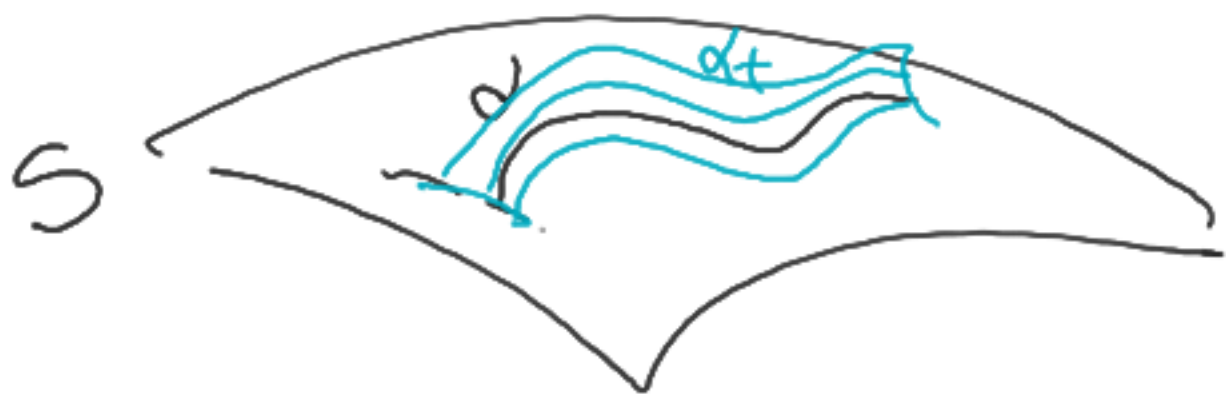
$$(p, t) \mapsto tN(p)$$



$$F: [a, b] \times (-\varepsilon, \varepsilon) \rightarrow S$$

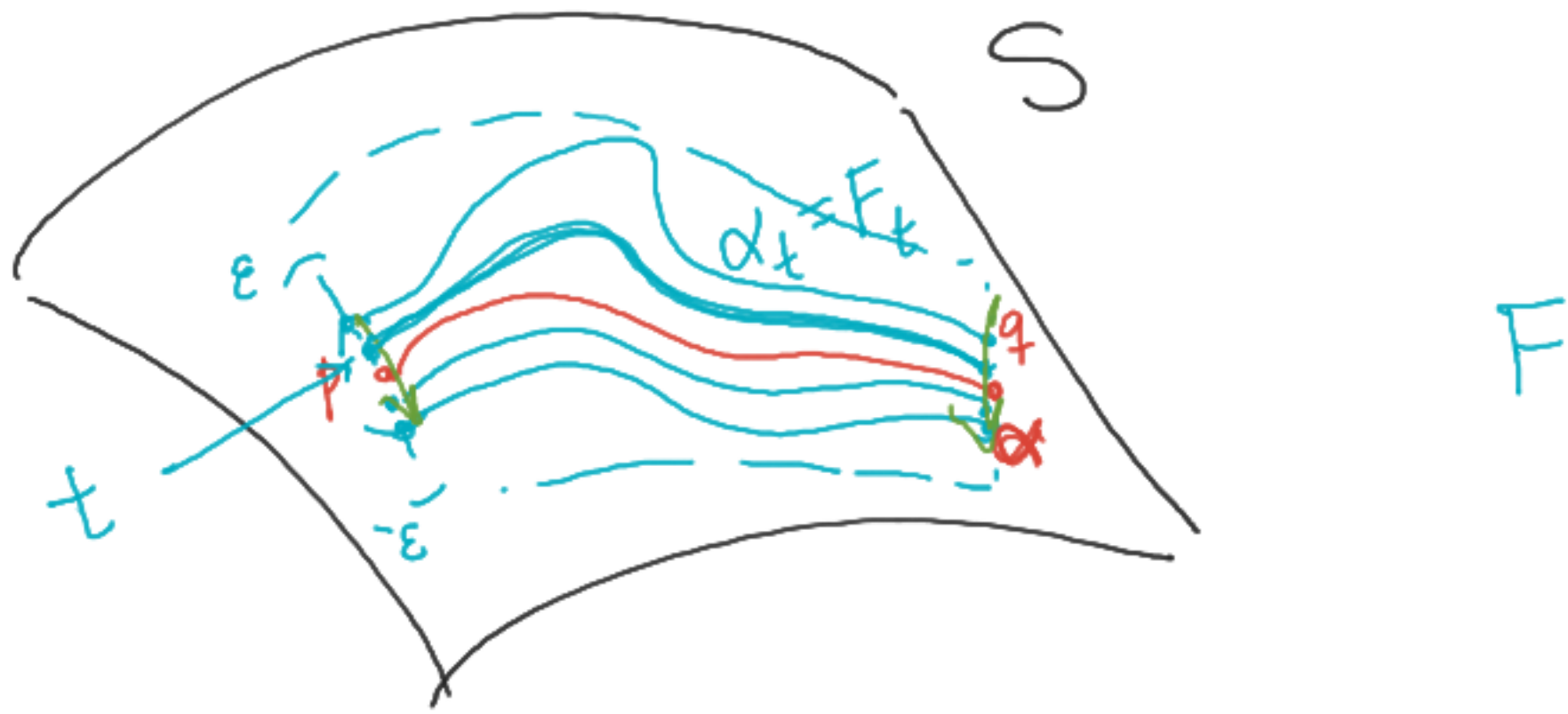
F snave

$$F(s, 0) = \alpha(s)$$



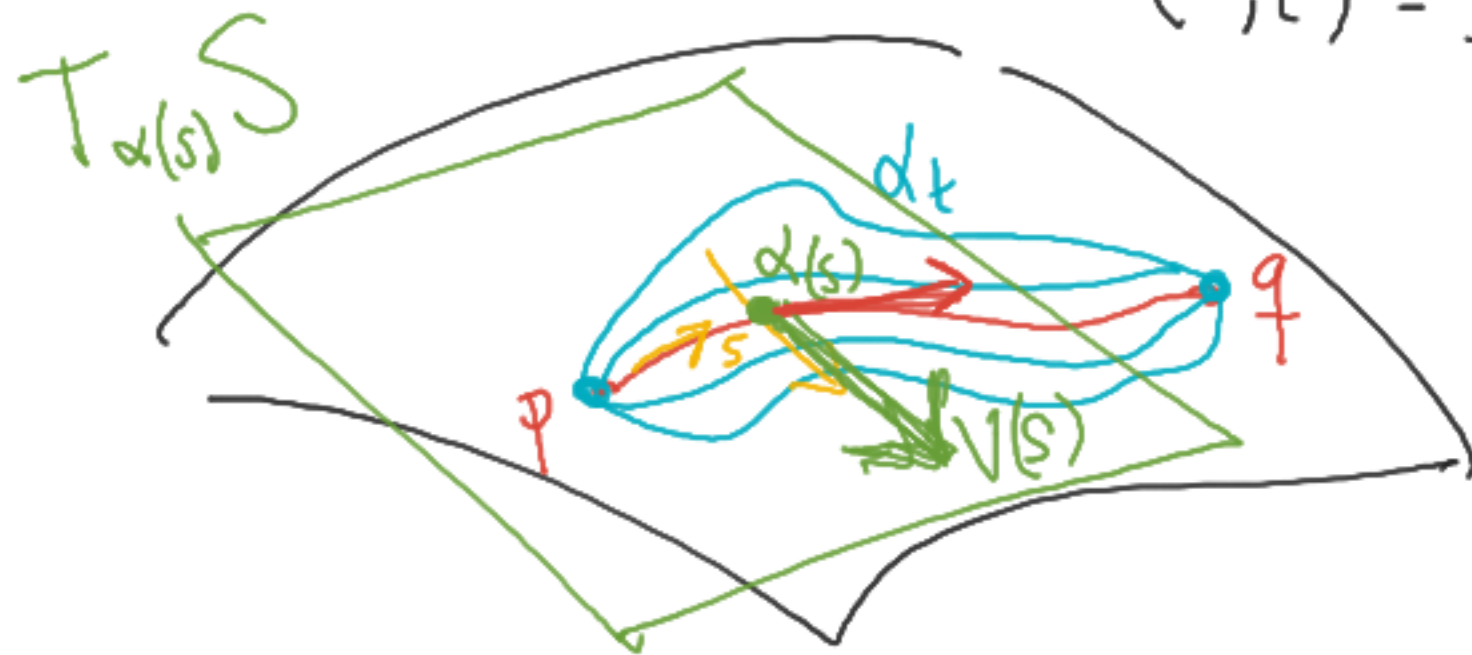
- F snave (class C^2)

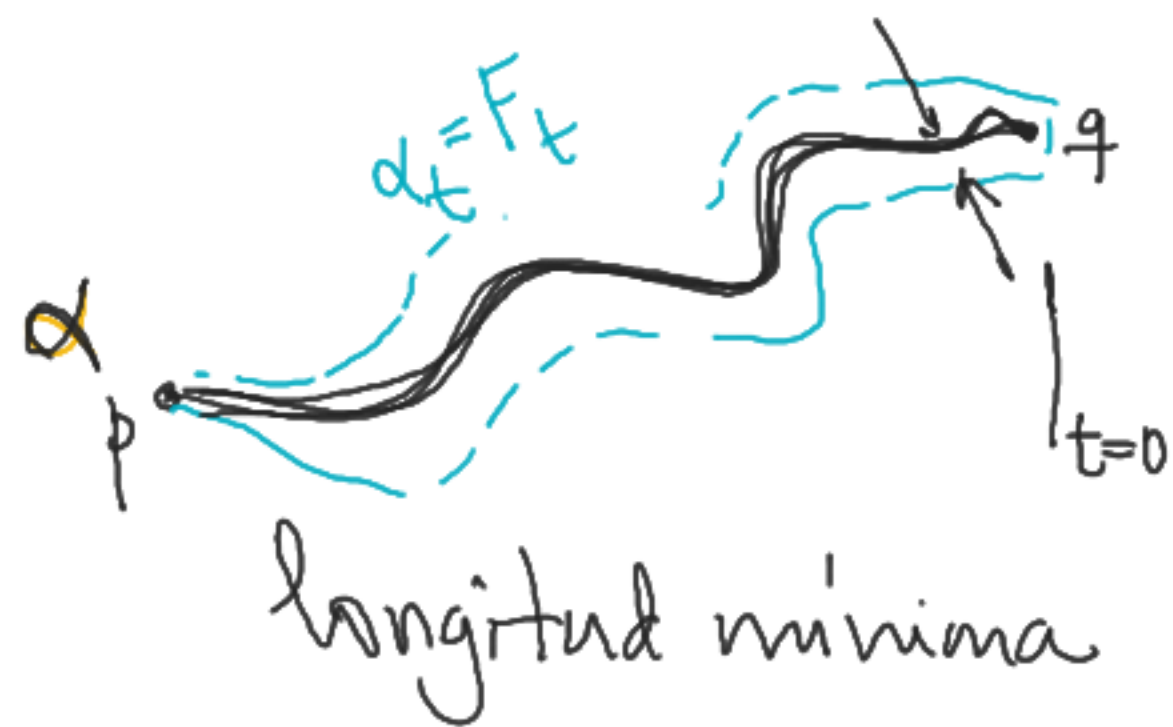
$$F(s, t)$$



F es variaci3n propia si

$$F(a,t) = p, \quad \forall t \in (-\varepsilon, \varepsilon)$$

$$F(b,t) = q, \quad \forall t \in (-\varepsilon, \varepsilon).$$




$$L_F(t) = \mathcal{L}_a^b(F_t)$$