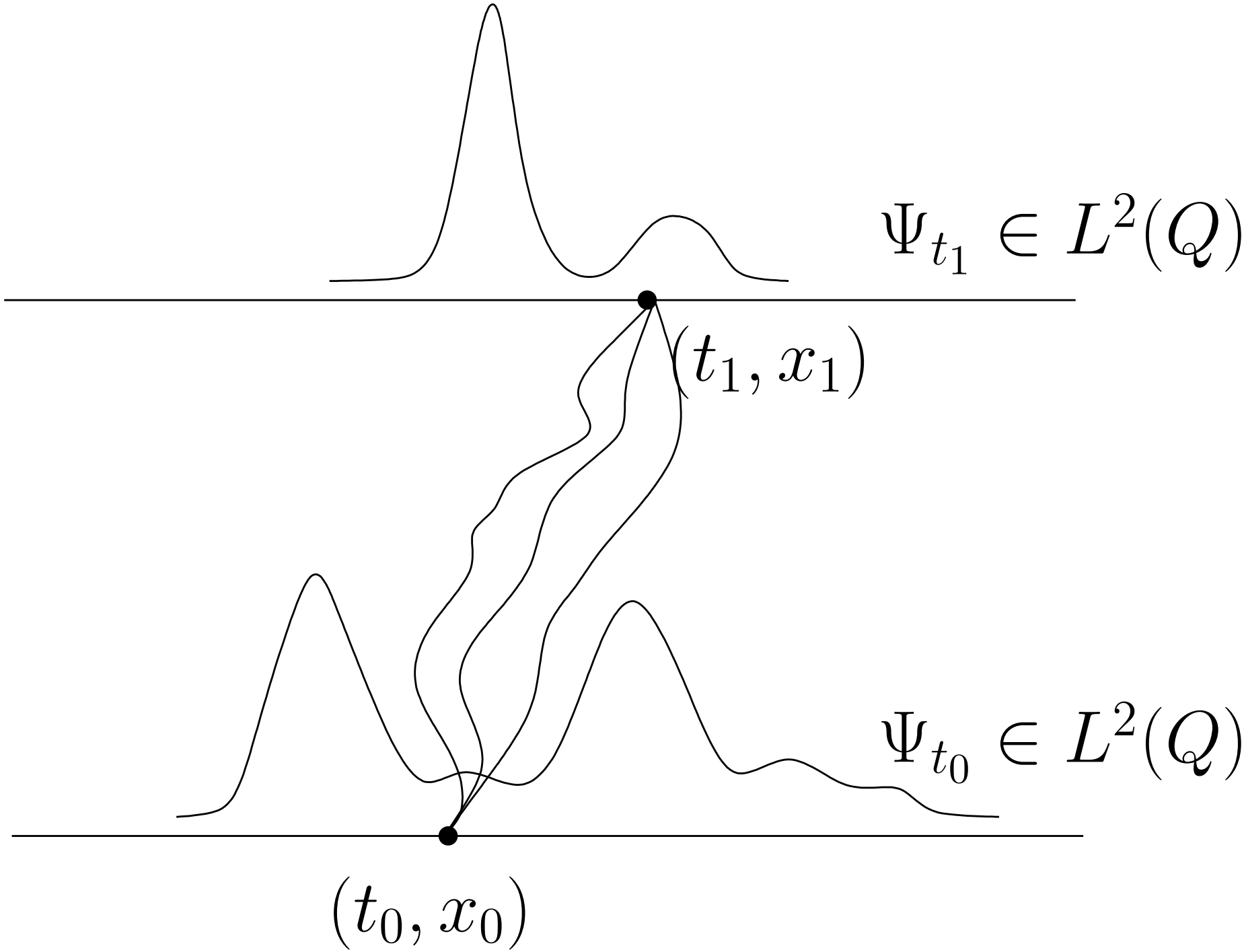
$\Psi_{t_1} \in L^2(Q)$
(t_1, x_1)
$\Psi_{t_0} \in L^2(Q)$
(t_0, x_0)