

1 Feynman path integrals with complex mass

1.1 COMPLEX ACTIONS

- Short introduction to actions Todo
- Why a complex action? Todo
- Attempts to show a complex action is possible Todo
- Find classical path from path-integral with complex mass Todo

1.2 SOME FORMULAS

$$\begin{aligned} & \dots \\ & L(\{q_j(t)\}, \{\dot{q}_j(t)\}, t) := T - V \frac{d}{dt} \left(\frac{\partial L}{\partial \dot{q}_j} \right) - \frac{\partial L}{\partial q_j} = 0 \quad \forall_j L \rightarrow \mathcal{L}((x), (x)) \left(\frac{\partial \mathcal{L}}{\partial (x)} \right) - \frac{\partial \mathcal{L}}{\partial (x)} = \\ & 0 S(t_0, t_1) := \int_{t_0}^{t_1} \mathcal{L}((t), (t), t) \, dt \delta S = 0 B, A^2, A, C, A \times B \nabla f, \nabla f, \nabla \cdot F, \nabla \times F, f \Rightarrow, \Rightarrow, \Leftrightarrow, \Leftrightarrow \\ & , \rightarrow, \mapsto, \rightsquigarrow =, =:, \equiv, \cong, \approx, \sim, \propto \end{aligned}$$

