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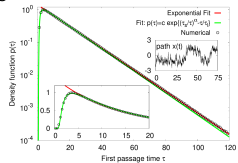
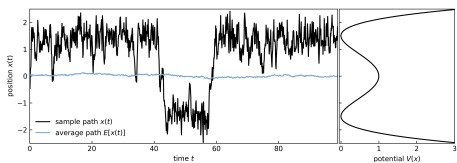
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**Schrödinger**

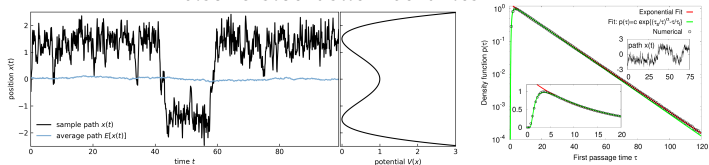
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# Nelson's stochastic mechanics

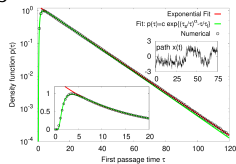
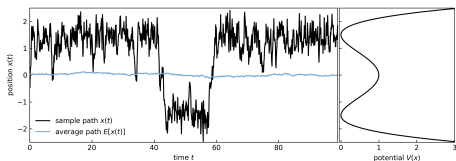


## Nelson's stochastic mechanics



extending the links between the formalisms of quantum and classical mechanics

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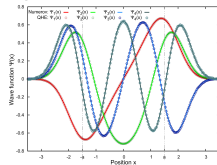


extending the links between the formalisms of quantum and classical mechanics

quantum Hamilton equations

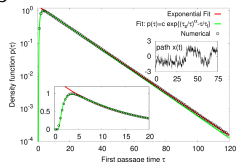
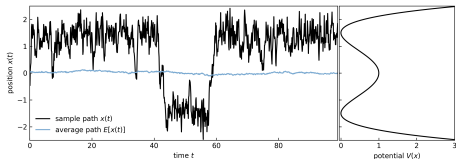
$$m dx = [p_{\pm}] dt + m \sigma dW_{\pm}$$

$$d p_{+} = \partial_x V dt + \sigma [\partial_x p_{+}] dW_{-}$$





# Nelson's stochastic mechanics

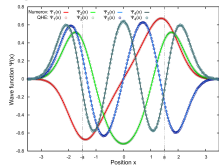


extending the links between the formalisms of quantum and classical mechanics

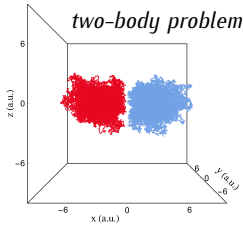
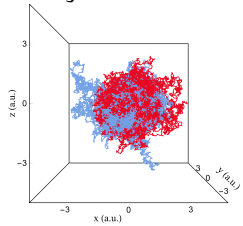
**quantum Hamilton equations**

$$m dx = [\mathbf{p}_\pm] dt + m \sigma d\mathbf{W}_\pm$$

$$d\mathbf{p}_+ = \partial_x V dt + \sigma [\partial_x \mathbf{p}_+] d\mathbf{W}_-$$



analogies drawn to classical mechanics for multi-particle systems



*two-body problem*

