

H_{GPE} & Wavefunctions

Hidden scope

Ctrl Problem

0.99 FT 100 N

Space & time

Spatial Dimension

x_{min} -2

x_{max} 2

n 256

Time

t_{min} 0

t_{max} 0.8

n 501

$dt = 0.0016$

4 β

10 a

4 b

Getting the eigenvalues and eigenvectors

β

V

ψ_0

ψ_D

Potential

x

a

b

V

\oplus

$0.5*a^2*x^2 + 0.5*b^4*x^4$

GPE Control Problem

ψ_0

ψ_T

beta

$0.5*a^2*(x-u0)^2 + 0.5*b^4*(x-u0)^4$

Problem

a

b

Control

N_{params} 1

y_{max} 1

y_{min} -1

Reset

$u(0)$

t

Potential node

Scalar nodes

Control function

GRAPE scope

Unnamed scope

Grape Optimization

Problem

$u^{(0)}$

N

TargetFidelity

☐ use H1

☒ use BFGS

u_0_{min} 0 u_0_{max} 1

fidelity

$\{ \psi(c) \}$

γ

σ

Scalar Time Trace Plot

y_{min} 0

y_{max} 1

Reset view

$u(0)$