

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Nonlinear dynamics of Bohmian trajectories in a double-well potential O. F. DE ALCANTARA BONFIM, Univ of Portland, JOAO FLORENCIO, Universidade Federal Fluminense, RJ-Brazil — We investigate the dynamics of a quantum particle in a one-dimensional double-well potential within the framework of Bohm's quantum mechanics. We find that the behavior of the trajectories is linked to the degree of complexity of the initial wave packet. By increasing the complexity of the wave packet we obtain trajectories that are either periodic, quasiperiodic, or chaoticlike.

O. F. de Alcantara Bonfim
Univ of Portland

Date submitted: 03 Nov 2015

Electronic form version 1.4