2005 Vol. 44 No. 2 pp. 243-246 DOI:

Evolutions of Yang Phase Under Cyclic Condition and Adiabatic Condition QIAN Shang-Wu¹ and GU Zhi-Yu²

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Abstract: There are three non-integrable phases in literatures: Berry phase, Aharonov-Anandan phase, and Yang phase. This article discusses the evolutions of Yang phase under the cyclic condition and the adiabatic condition for the general time-dependent harmonic oscillator, thus reveals the intimate relations between these three non-integrable phases.

PACS: 03.65. Ta, 03.65. Vf

Key words: Berry phase, A-A phase, Yang phase, general time-dependent harmonic

oscillator

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