Theoretical calculations of quantum phase of time-dependent multimode coupled quadratic polynomial Bose system

Ang-Yang Yu [1*]

[1] Nankai University, China

Abstract

The theory of generalized linear transformation is utilized to obtain the only strict solution of time-dependent multi-mode coupled quadratic polynomial Bose system evolution operator. Based on this solution, both the Pancharatnam (PM) quantum phase1 and Aharonov-Anandan (A-A) quantum phase2 of the time-dependent multimode coupled quadratic polynomial Bose system have been calculated and analyzed. The relationship between PM quantum phase and A-A quantum phase has also been discussed. This work is significant for investigating quantum phase, including the topic of Berry phase.

Biography:

Ang-Yang Yu is affiliated with Nankai University and other places. Through investigating one typical gravure plate-making industry in Tianjin, P.R. China, waste management and cleaner production audit (CPA) are playing a crucial role in reducing consumption of energy, water and raw materials, in addition to avoid waste generation.

Speaker Publications:

1. Ang-YangYu. "Theoretical study of the O (1D) reaction with methane"; Organic Chemistry an Indian Journal/ 2015; 11:8.
2. Ang-Yang Yu. "Partial potential energy surfaces and their application to reaction resonances"; Progress in Reaction Kinetics and Mechanism/ 2017; 42(3):300–305.

7th International Conference on Applied Physics & Space Science; Webinar- August 17-18, 2020.

Abstract Citation:

Ang-Yang Yu, Theoretical calculations of quantum phase of time-dependent multimode coupled quadratic polynomial Bose system, Applied Physics 2020, 7th International Conference on Applied Physics & Space Science; Webinar- August 17-18, 2020.
(https://appliedphysics.physicsmeeting.com/abstract/2020/theoretical-calculations-of-quantum-phase-of-time-dependent-multimode-coupled-quadratic-polynomial-bose-system)