

Quantum Engine Proposal using Two-level Atom Like Manipulation and Relativistic Motoring Control

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Abstract : A two-level system is manipulated by a microstrip add-drop circuit configured as an atom like system for wave-particle behavior investigation when its traveling speed along the circuit perimeter is the speed of light. The entangled pair formed by the upper and lower sideband peaks is bound by the angular displacement, which is given by $0 \leq \theta \leq \pi/2$. The control signals associated with 3-peak signal frequencies are applied by the external inputs via the microstrip add-drop multiplexer ports, where they are time functions without the space term involved. When a system satisfies the speed of light conditions, the mass term has been changed to energy based on the relativistic limit described by the Lorentz factor and Einstein equation. The different applied frequencies can be utilized to form the 3-phase torques that can be applied for quantum engines. The experiment will use the two-level system circuit and be conducted in the laboratory. The 3-phase torques will be recorded and investigated for quantum engine driving purpose. The obtained results will be compared to the simulation. The optimum amplification of torque can be obtained by the resonant successive filtering operation. Torque will be vanished when the system is balanced at the stopped position, where $|\text{Time}|=0$, which is required to be a system stability condition. It will be discussed for future applications. A larger device may be tested in the future for realistic use. A synchronous and asynchronous driven motor is also discussed for the warp drive use.

Keywords : quantum engine, relativistic motor, 3-phase torque, atomic engine

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