

Rashba Effect from Schwinger's Oscillator Model

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Synthetic magnetic field is recently demonstrated theoretically and experimentally in an ensemble of neutral atoms through Rashba effect. In this presentation, Schwinger's oscillator model is used to demonstrate the Rashba effect in favor of traditional angular momentum bases. The Schwinger's model is useful in setting up the master equation of atoms interacting with field both in free space and cavity to reflect the synthetic field.

Author: Mr PHILATHONG, Hariphan (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

Co-authors: Dr CHATTRAPIBAN, Narupon (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand); Dr ANUKOOL, Waranont (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

Presenter: Mr PHILATHONG, Hariphan (Department of Physics and Materials Science, Faculty of Science, Chiang Mai University, Chiang Mai 50200, Thailand)

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