Electron Musical Chairs: The Rabi Oscillation

(QuTIP Edition)

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INTRODUCTION

CONTEXT

The Statistical Nature of Light – Object Measured

Rabi Oscillations – Property Measured

Lindblad and/or Bloch-Redfield Master Equations – Analytic Theory

Quantum Dot – Experimental Production of the Object to be Measured

Unbalanced Mach-Zender Interferometer – Measurement Process of Object to Obtain Information on the Property

Intuitively expect once electrons are excited by laser that that was the end of the story, however what actually happens is an oscillatory excitation and de-excitation of the electron that is dependent on the pulse length of the laser.