

Q&A

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- Q. What does ϕ means in parity oscillation? And what is the meaning of fidelity?
- A. Before detecting states in parity oscillation, a $\pi/2$ rotation is executed on atom pair with rotate axis determined by a certain relative phase to previous pulses. ϕ indicates the relative phase in this case. Fidelity can be interpreted as a scale of how close to the ideal case?

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- Q. Is the position of atom pairs important? In other word, how does the magnitude of coupling constants of each atoms effects the experiment?
- A. The point is to cause normal mode splitting. Unless atoms are in nodes of the cavity mode, it would be okay to slightly away from the exact antinode positions.

Q&A

- Q. What does the full width at half maximum in the Gaussian intensity profile means?
- A. The team used photon pulses with its intensity varies with time in Gaussian function. Its FWHM is $0.9\mu s$