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Gate control of quantum dot-based electron spin-orbit qubits

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## Highlights

- Rabi oscillation of qubit states can be manipulated electrically based on rapid gate control of SOC strength.
- The Rabi frequency is strongly dependent on the gate-induced electric field, strength and orientation of magnetic field.
- Rabi oscillation is anisotropic and periodic with respect to the tilted and in-plane orientation of the magnetic field.
- There are two major EDSR mechanisms in Rabi oscillation of qubit states.

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