

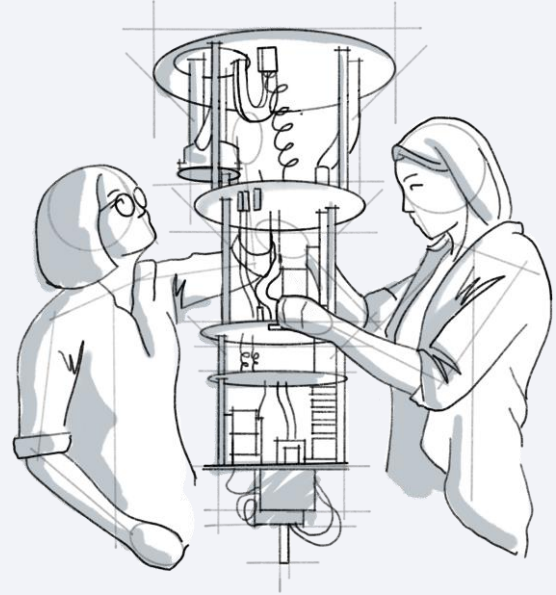
Issue #45: Working with Higher Energy States using builder notation of Qiskit Pulse

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Deliverables

- Upgrade the Qiskit Textbook chapter 6.2 using the latest builder syntax of Qiskit Pulse
- Eliminate the need for sideband pulses to excite a qubit at anharmonicity
- Add new experiments that demonstrate the power of the new builder notation as part of Qiskit v0.30



Progress

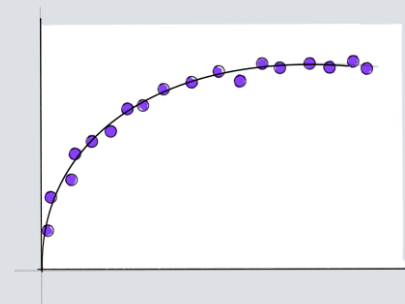
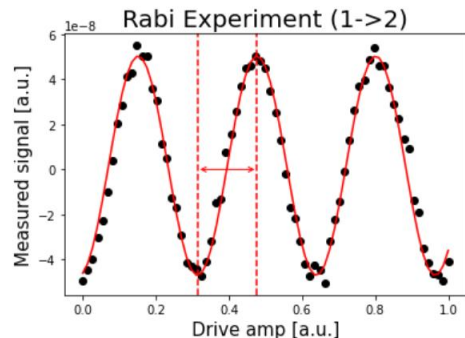
- Code upgrade from older version of pulse to builder notation is complete
- Tips and tricks to use the builder notation has been added in the notebook
- Use of sideband pulses have been eliminated to excite qubit at anharmonicity
- Code has been tweaked to be hardware-agnostic

Next Steps

Add new qiskit pulse experiments to demonstrate the power of builder syntax for either:

- Two-qubit gates (or)
- Higher energy States

Successful Rabi Oscillations created with builder syntax



Pulse schedule from the Rabi Experiment

