

Refinements in Superconducting Qubits: From Theory to Tools

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Superconducting circuits currently play a pivotal role in quantum information applications, and their continuous development is informed by precise modeling. This presentation will offer both a review of past work on transmon and fluxonium qubits, and a look at recent collaborative efforts venturing into the domain of designing quantum circuits with improved error protection. A brief overview of the open-source "scqubits" package, a tool for streamlining the simulation and study of superconducting qubits, will conclude the talk.