



Superconducting Quantum Computing and Devices

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Due to its scalability, superconducting qubit based on Josephson junction circuits has become one of the most promising candidates for realizing practical quantum computation and quantum simulation. Although fault-tolerant quantum computing remains a challenge, with the recent demonstrations of quantum advantage, superconducting quantum computation has been stepping into the “noisy intermediate scale quantum” (NISQ) technology era, in which non-error-corrected qubits are used to implement quantum algorithms and quantum simulations. In order to implement superconducting quantum computing, people have developed many superconducting devices, such as superconducting transmon qubit, high-Q superconducting cavity, tunable coupler, Purcell filter, and Josephson parametric amplifier, which play an essential role in the manipulation and readout of superconducting qubit. This area is continuing to expand.

More details, please refer to the following link:

https://www.mdpi.com/journal/applsci/special_issues/Supercon





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Message from the Editor-in-Chief

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