

Cover letter for submission

We are submitting the paper “The superconducting twin qubit” to **Physics Review B - Rapid Communications**, where we characterise a recent variation of the standard flux qubit geometry.

The experimentally studied qubit has high anharmonicity and low sensitivity to global flux noise. The simulations we perform and match to experiment, can be used as a starting point for further investigation of similar systems on this alternative type of qubit. We provide experimental evidence of its transition spectrum and decoherence behaviour as well as outlining the fabrication and measurement procedure.

This will be of interest to groups that want to reduce unwanted sources of noise in operations involving superconducting qubits, while maintaining robust addressing of specific transitions within the system. We believe that there is interesting research that can be performed in this qubit platform. We ask for priority handling of the paper, so as to increase its exposure to potential scientific and industrial research groups.