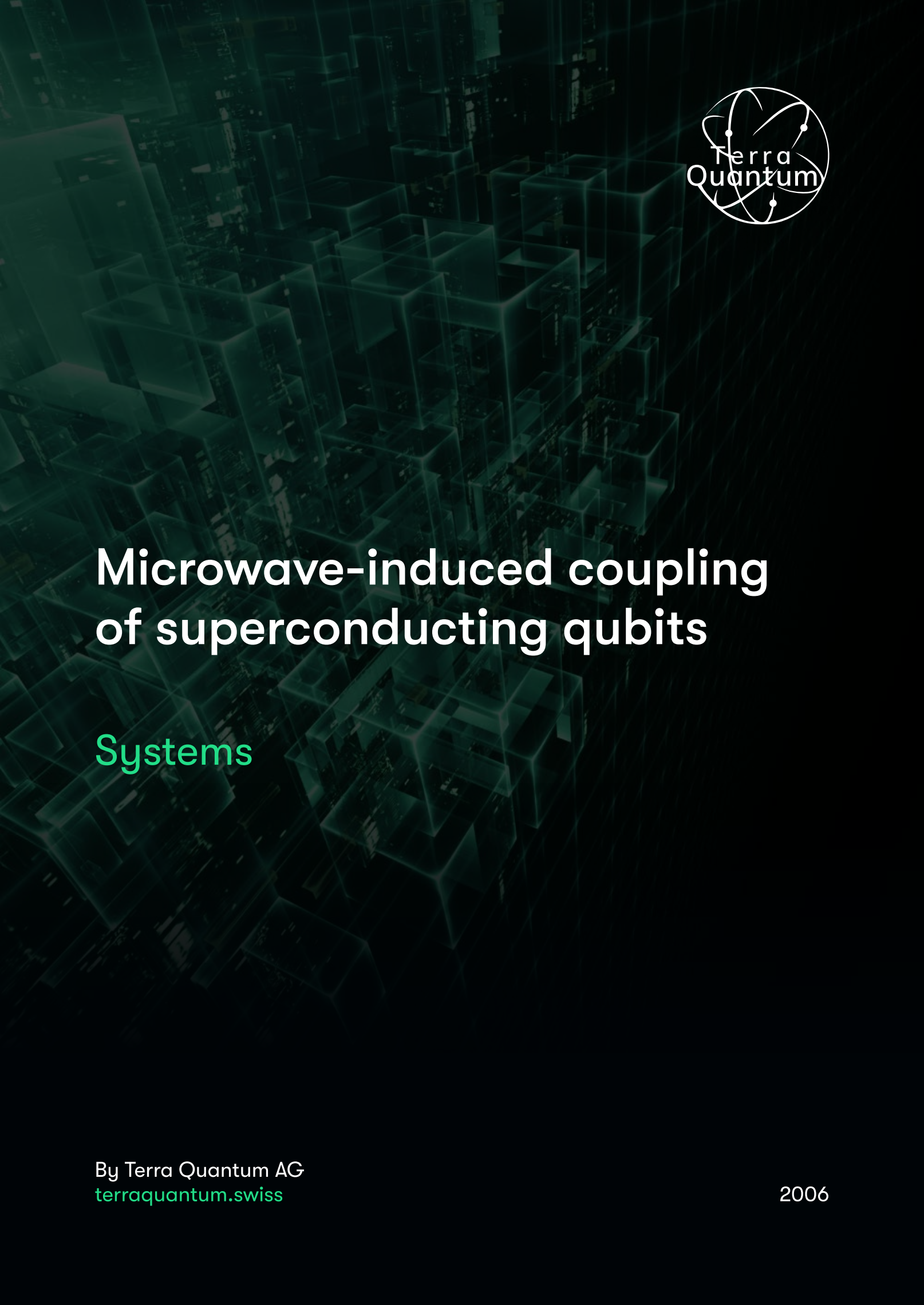

Microwave-induced coupling of superconducting qubits

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2006

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ABSTRACT

We investigate the quantum dynamics of a system of two coupled superconducting qubits under microwave irradiation. We find that, with the qubits operated at the charge codegeneracy point, the quantum evolution of the system can be described by an effective Hamiltonian which has the form of two coupled qubits with tunable coupling between them. This Hamiltonian can be used for experimental tests on macroscopic entanglement and for implementing quantum gates.

The full article can be found here:
https://journals.aps.org/prb/abstract/10.1103/PhysRevB.74.140504