# Benchmarking the Energetic Performance of Different Platforms of Quantum Computation

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In this presentation, we report the recent results of our studies on the energetics of quantum computation based on trapped-ions, cold atoms, semiconductors, and superconducting cat qubits. We present a comprehensive analysis of the energetic cost of the quantum information processing for each of these platforms, including with quantum error correction in the latter two cases, and benchmark it against the classical state of the art. Furthermore, we compare the performance of the different platforms, and discuss the corresponding implications for quantum hardware development.