

SUPERCONDUCTING QUANTUM PROCESSOR

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REPORT

“Quantum computing” is one of the phrases that invoke the imagination of future technology. Superconducting Quantum Processors are considered to be one of the most promising candidate technology to implement quantum computing. Due to the rapid development of superconducting quantum computing, the global race to quantum computer is in full swing. Many technology industries including Google, IBM, Microsoft as well as Intel, are jockeying for a position in quantum computing. All these advances and efforts have brought a promising future for quantum computing. In this seminar, a brief idea about fundamental concepts of superconducting quantum computing and its processor will be introduced in focus to its architecture. The quantum computing systems helps to tackle complex computations for business and financial modelling, medical researches, machine learning, communication, cryptography and engineering services. Quantum computers can solve problems that are impossible or would take a traditional computer an impractical amount of time to solve. Hence, quantum computers will change the world, leads to a better and faster solutions for the most challenging problems and so for the unprecedented applications.

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