Hardware for Efficient Measurements and Massive Signal Delivery in Superconducting Quantum Processors

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Abstract— **What does it take to build a scalable quantum computer? Superconducting circuits were identified as a promising platform to build a quantum computer a while ago, but for scientists and engineers from academia and industry the goal of a scalable system based on this platform is still far-fetched. While some common strategies have been developed, identifying a broader set of globally accepted guidelines with the long-term goal of forming industry standards is increasingly important. This workshop provides a platform for speakers and audience from academia, industry, and test & measurement instrument manufacturers to look into what activities have already been undertaken, how common mistakes can be avoided and what actions are still needed within the circuit QED (quantum electrodynamics) community to agree on a general set of guidelines that will simplify and support the development of quantum computers.**

Keywords (Index Terms) — **Quantum, superconducting, quantum computing, qubits, measurement, scalability.**