Abstract Submitted for the DAMOP19 Meeting of The American Physical Society

**Progress toward scalable quantum computing at Honeywell Quantum Solutions** JOHN GAEBLER, BRYCE BJORK, DAN STACK, MATTHEW SWALLOWS, MAYA FABRIKANT, ADAM REED, BEN SPAUN, JUAN PINO, JOAN DREILING, CAROLINE FIGGATT, Honeywell Quantum Solutions — Honeywell Quantum Solutions (HQS) is pursuing a scalable quantum computing architecture based on trapped atomic ions. To this end, HQS is developing a broad array of enabling technologies and capabilities, including demonstrations of high-fidelity single- and two-qubit gates, fast ion transport and ion crystal reconfiguration, parallel multi-zone laser addressing of trapped ion qubits, and the design and microfabrication of state-of-the-art multi-zone ion traps. We will report recent progress on these and other fronts.

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