Rigetti Granted Air Force Office of Scientific Research Award to Further Develop Breakthrough Chip Fabrication Technology

April 28, 2025

The $5.48 million Rigetti-led consortium will include Iowa State University, the Royal Melbourne Institute of Technology, the University of Connecticut, and Lawrence Livermore National Laboratory. The project aims to develop a deeper understanding of how Rigetti's novel chip fabrication process, Alternating-Bias Assisted Annealing (ABAA), reduces defects in superconducting qubits.

BERKELEY, Calif., April 28, 2025 (GLOBE NEWSWIRE) -- Rigetti Computing, Inc. (Nasdaq: RGTI) ("Rigetti" or the "Company"), a pioneer in full-stack quantum-classical computing, announced today that it was granted an Air Force Office of Scientific Research award to further develop its breakthrough chip fabrication technology, Alternating-Bias Assisted Annealing (ABAA). The $5.48 million Rigetti-led consortium, including Iowa State University, the Royal Melbourne Institute of Technology, the University of Connecticut, and *Lawrence Livermore National Laboratory (LLNL), aims to develop a detailed understanding of how ABAA impacts the chip on a microscopic level — which will shed light on defects in superconducting qubits and open new avenues for understanding and mitigating them.

Addressing defects in superconducting qubits is a fundamental challenge in building large-scale fault-tolerant quantum computers. Last year, Rigetti introduced ABAA which entails applying a series of alternating low-voltage pulses at room temperature to the oxide barrier of the Josephson junction, a critical part of Rigetti's superconducting qubits. Rigetti researchers discovered that this technique enables qubit frequencies to be precisely targeted prior to chip packaging. This improves the fidelity of two-qubit gates and the scalability of the technology. Unlike more complicated solutions that address the problem of tuning frequency, which often require laser trimming of the chip, ABAA is a simple and scalable process that only requires sending pulses of voltage to the chip.

Rigetti devices that have been manufactured leveraging ABAA show a reduction in two-level systems (TLSs). TLSs are defects in a qubit's material that impact qubit performance by pulling energy from the qubit or dephasing it. Ultimately, understanding the effects of ABAA on TLSs will lay the groundwork for scaling the fabrication of superconducting quantum devices and other applications that rely on amorphous materials in tunnel junctions and dielectrics.

"This project gives us access to the resources and expertise to unlock the full potential of ABAA and gain a foundational understanding of defects in superconducting qubits," says Dr. Subodh Kulkarni, Rigetti CEO. "We already know that superconducting qubits have advantages in speed and scalability. Deepening our knowledge of superconducting qubit defects puts us in an even better position to scale our systems with improved performance."

Rigetti continues to support the U.S. Government's commitment to maintaining quantum computing leadership and advancing the field. Rigetti was recently selected to participate in DARPA's Quantum Benchmarking Initiative , which aims to determine if any approach to quantum computing can achieve utility-scale operation by 2033.

**Funded separately though Laboratory for Physical Sciences, University of Maryland*

About Rigetti
Rigetti is a pioneer in full-stack quantum computing. The Company has operated quantum computers over the cloud since 2017 and serves global enterprise, government, and research clients through its Rigetti Quantum Cloud Services platform. In 2021, Rigetti began selling on-premises quantum computing systems with qubit counts between 24 and 84 qubits, supporting national laboratories and quantum computing centers. Rigetti's 9-qubit Novera™ QPU was introduced in 2023 supporting a broader R&D community with a high-performance, on-premises QPU designed to plug into a customer's existing cryogenic and control systems. The Company's proprietary quantum-classical infrastructure provides high-performance integration with public and private clouds for practical quantum computing. Rigetti has developed the industry's first multi-chip quantum processor for scalable quantum computing systems. The Company designs and manufactures its chips in-house at Fab-1, the industry's first dedicated and integrated quantum device manufacturing facility. Learn more at www.rigetti.com.

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Cautionary Language and Forward-Looking Statements
Certain statements in this communication may be considered "forward-looking statements" within the meaning of the federal securities laws, including but not limited to, expectations with respect to the Company's business and operations, including its expectations related to the Air Force Office of Scientific Research award and work with Iowa State University, the Royal Melbourne Institute of Technology, the University of Connecticut, and Lawrence Livermore National Laboratory to develop a detailed understanding of how Alternating-Bias Assisted Annealing (ABAA) impacts the chip on a microscopic level, unlocking ABAA's full potential, and expectations that deepening knowledge of superconducting qubit defects improves Rigetti's position to scale systems with improved performance. Forward-looking statements generally relate to future events and can be identified by terminology such as "commit," "may," "should," "could," "might," "plan," "possible," "intend," "strive," "expect," "intend," "will," "estimate," "believe," "predict," "potential," "pursue," "aim," "goal," "outlook," "anticipate," "assume," or "continue," or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by Rigetti and its management, are inherently uncertain. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: Rigetti's ability to achieve milestones, technological advancements, including with respect to its roadmap, help unlock quantum computing, and develop practical applications; the ability of Rigetti to complete ongoing negotiations with government contractors successfully and in a timely manner; the potential of quantum computing; the ability of Rigetti to obtain government contracts and the availability of government funding; the ability of Rigetti to expand its QCS business; the success of Rigetti's partnerships and collaborations;

Rigetti's ability to accelerate its development of multiple generations of quantum processors; the outcome of any legal proceedings that may be instituted against Rigetti or others; the ability to continue to meet stock exchange listing standards; costs related to operating as a public company; changes in applicable laws or regulations, including taxes and tariffs; the possibility that Rigetti may be adversely affected by other economic, business, or competitive factors; Rigetti's estimates of expenses and profitability; the evolution of the markets in which Rigetti competes; the ability of Rigetti to execute on its technology roadmap; the ability of Rigetti to implement its strategic initiatives, expansion plans and continue to innovate its existing services; disruptions in banking systems, increased costs, international trade relations, political turmoil, natural catastrophes, warfare, and terrorist attacks; and other risks and uncertainties set forth in the section entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" in the Company's Annual Report on Form 10-K for the year ended December 31, 2024, and other documents filed by the Company from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and the Company assumes no obligation and does not intend to update or revise these forward-looking statements other than as required by applicable law. The Company does not give any assurance that it will achieve its expectations.