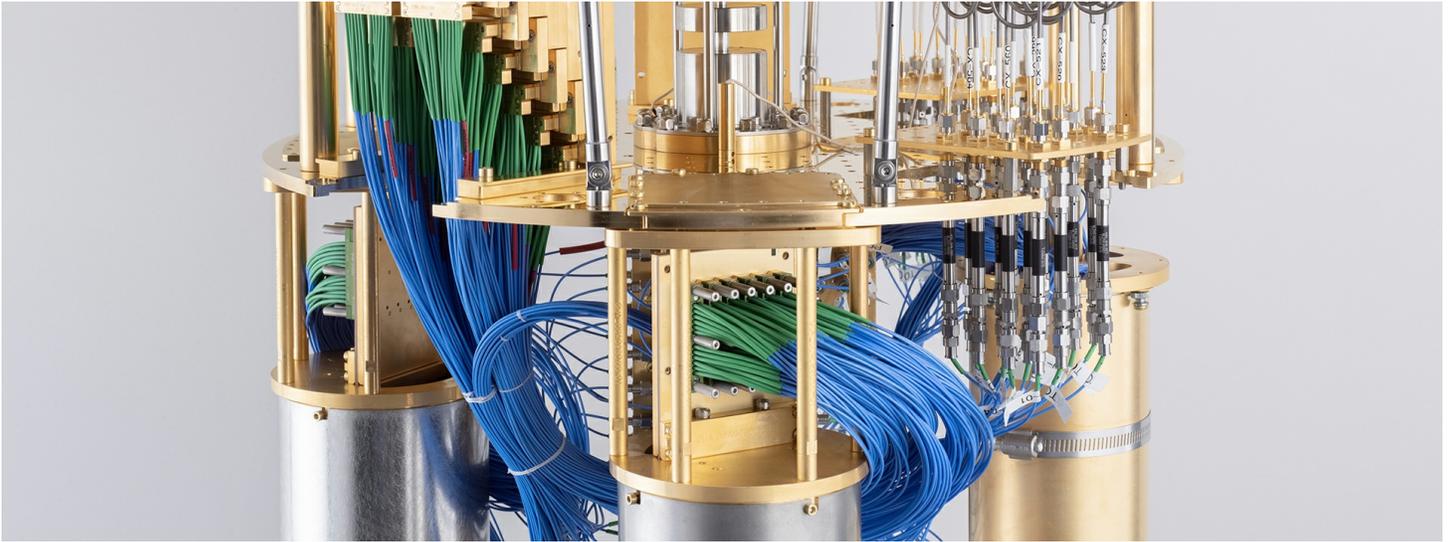


## IBM and Pasqal Initiate Collaboration to Define Classical-Quantum Integration for Quantum-Centric Supercomputers



**YORKTOWN HEIGHTS, NY – June 6<sup>th</sup>, 2024** – IBM (NYSE: [IBM](#)) and Pasqal, as leaders in superconducting circuit and neutral atom-based quantum computers respectively, today announced their intent to partner to develop a common approach to quantum-centric supercomputing and promoting application research in chemistry and materials science. IBM and Pasqal will work with leading institutions in high-performance computing to establish the foundations for quantum-centric supercomputing — the integration of quantum computing with advanced classical computing to create the next generation of supercomputers.

IBM and Pasqal aim to work together to define the software integration architecture for a quantum-centric supercomputer that orchestrates computational workflows across multiple modalities of quantum computers and advanced classical compute clusters. The two companies share the vision for a common approach to integration based on open-source software and involvement of the technical community. IBM and Pasqal plan to co-sponsor a regional HPC technical forum in Germany, with plans to expand this effort in other geographies.

A key aspect of this partnering activity is the shared objective between IBM and Pasqal to foster utility-scale industry adoption in materials science and chemistry; an area where quantum-centric supercomputing shows immediate potential. IBM and Pasqal aim to substantially advance the use of quantum computing for applications in chemistry and material sciences, by harnessing their respective full-stack quantum computing leading roles and by working with the Materials working group established last year by IBM. The group will continue to explore the best methods to build workflows for utility-scale computation for chemistry leveraging a hybrid of quantum and classical computation.

“Quantum-centric supercomputing is the future of high-performance computing and is the way to achieve near-term quantum advantage in chemistry, materials science and other scientific applications. This collaboration with Pasqal will ensure that this future is open and agnostic to the hardware modality, creating more value for our clients and users. I look forward to Pasqal joining us in bringing quantum-centric supercomputing to the world,” said Jay Gambetta, IBM Fellow and Vice President, IBM Quantum.

“Today marks a significant milestone in the quantum computing industry as we embark on this collaboration with IBM. We look forward to combining efforts for a highly ambitious goal: begin to establish business best practices for quantum-centric supercomputing. Harnessing the strengths of both technologies, we stand ready to match the accelerating pace of our

customers' needs and meet their growing demands," said Georges-Olivier Reymond, CEO, Pasqal.

## About IBM

IBM is a leading provider of global hybrid cloud and AI, and consulting expertise. We help clients in more than 175 countries capitalize on insights from their data, streamline business processes, reduce costs and gain the competitive edge in their industries. More than 4,000 government and corporate entities in critical infrastructure areas such as financial services, telecommunications and healthcare rely on IBM's hybrid cloud platform and Red Hat OpenShift to affect their digital transformations quickly, efficiently and securely. IBM's breakthrough innovations in AI, quantum computing, industry-specific cloud solutions and consulting deliver open and flexible options to our clients. All of this is backed by IBM's long-standing commitment to trust, transparency, responsibility, inclusivity and service. Visit [ibm.com](https://www.ibm.com) for more information.

## About Pasqal

Pasqal is a leading Quantum Computing company that builds quantum processors from ordered neutral atoms in 2D and 3D arrays to bring a practical quantum advantage to its customers and address real-world problems. Pasqal was founded in 2019, out of the Institut d'Optique, by Georges-Olivier Reymond, Christophe Jurczak, Professor Dr. Alain Aspect – Nobel Prize Laureate Physics, 2022, Dr. Antoine Browaeys and Dr. Thierry Lahaye. Pasqal has secured more than €140 million in financing to date. To learn more about Pasqal, visit [www.pasqal.com](https://www.pasqal.com).

## Media contacts:

### IBM

Chris Nay

[cnay@us.ibm.com](mailto:cnay@us.ibm.com)

Gaëlle Dussutour

+33 (0)6 74 98 26 92

[dusga@fr.ibm.com](mailto:dusga@fr.ibm.com)

### Pasqal

Anna Ghica

[anna.ghica@pasqal.com](mailto:anna.ghica@pasqal.com)

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