

Market Analysis: Quantum Computing Market and Technologies

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Received date: November 03, 2021; **Accepted date:** November 17, 2021; **Published date:** November 25, 2021

Introduction

The global market for quantum computing would increase at a CAGR of 24.6 percent from 2018 to 2024, according to the "Quantum Computing Market and Technologies 2018-2024" report. The performance of Quantum Computing technology has improved at a remarkable rate in 2017, and we expect a wave of discoveries in 2018-2019.

We're in the midst of a "Quantum Computing Supremacy Race," which will produce ground-breaking computing capability that outperforms digital supercomputers. Quantum computing has the ability to alter long-standing dynamics in trade, intelligence, military affairs, and geopolitical power balances. If you've been following the news on quantum computing and the evolution of industrial and national efforts to build a scalable, fault-tolerant quantum computer that can solve problems that are beyond the scope of current supercomputing capabilities, you're aware that something big is brewing in the quantum world. Quantum physicists are now collaborating with corporate tech titans to build quantum computing capabilities and technologies as the cornerstone of a second information era, in ways that were unheard of just five years ago. Advances in quantum computer architecture, fault-tolerant algorithms, and new fabrication methods are gradually translating this "holy grail" technology into a viable programme that could one day outperform classical processing in some applications. With these new discoveries, the big question for businesses isn't whether a quantum computer will exist, but who will create it and benefit from it.

According to a new market research report titled "By Type Application of physics such as (Optical communication and laser processing), Vertical (Commercial, Telecom, Research, Defense, Medical, Automotive, Electronics, and Industrial), and Geography-Global Forecast to 2022," the market is expected to reach USD 15.38 billion by 2022, growing at a CAGR of 5.2 percent between 2017 and 2022. Increasing demand from the healthcare, environmental, and financial sectors, as well as a trend toward the creation of nano and micro devices, and improved performance over traditional material processing techniques, are all driving the rise of physics.

Because of the growing needs of companies as well as the large demand, atomic physics systems have been on the rise. The market for atomic physics is expected to reach USD 5.60 billion by 2020, growing at a CAGR of 6.0 percent from 2015 to 2020. In the next years, North America is likely to have the biggest share; however, the Asia-Pacific region, with a focus on India, China, and Japan, is predicted to have the highest growth rate in the atomic physics market. Agilent Technologies (US), PerkinElmer (US), Thermo Fisher Scientific (US), and Bruker Corporation are some of the major companies in the worldwide atomic physics market (U.S.).

Citation: Brent Zinserling, Market Analysis: Quantum Physics. J Phys Astron.2021;9(11):248

On the basis of process, end users, and geography, nuclear physics is utilised to define, describe, and forecast the market. From USD 2.25 billion in 2016, the Nuclear Physics market is estimated to reach USD 2.85 billion by 2021, growing at a CAGR of 4.8 percent from 2016 to 2021. We can look at the market for nuclear physics in four different regions: North America, Europe, Asia-Pacific, and the Rest of the World. It gives detailed details about the competitive landscape for industry leaders and stakeholders' opportunities.

Applied Physics is meant to be used in technical and practical situations. Applied Physics is based on the fundamental truths and concepts of the physical sciences, and it applies scientific principles to practical technologies and related fields such as Lasers, Optics, Semiconductor Devices, and Nanophotonics. Because of its uses, there is always a demand for Physics in the market.

According to previous industry research, the global market for Physics is predicted to reach over £3.4 billion by 2018. According to further estimates by market analysts BCC research, the global market for Physics-based sectors was valued much more in 2017, roughly £4.3 billion more, and is predicted to expand to around £6.2 billion by 2018, representing annual growth of 7.7%. Extending applications in the Cardiac, Breast MRI, and Neurologic domains is predicted to boost the global market, which is expected to grow from £770 million in 2015 to about £1.2 billion by 2019, representing a 9.3% annual growth rate.