

CHINA'S ASCENT AS A QUANTUM SPACE POWER

Introduction

Over the past two decades, China has directed a concerted effort towards pioneering technologies at the intersection of space and quantum physics. The launch and technological demonstrations of the Micius quantum communication satellite in 2016 was emblematic of this determination by China. Scientists have been testing quantum entanglement over distances since the 1970s. Though previous experiments have been done on quantum communication at the ground level, the distance over which they could be carried out were limited to a few hundred kilometers. This is primarily due to the degradation of entangled photons as they travel through optical cables – the longer the cable span, the less effective the transmission. This is why outer space becomes the ideal conduit for enabling long-distance secure communication applications such as intercontinental links, as there is negligible degradation of photons in space.¹ Quantum communication satellites, the instruments for such communications, are becoming increasingly important today as there is a growing need to secure critical information infrastructure – especially as the world is envisioning a fast-approaching future where quantum computing could unlock even the most secure classical encryption codes.



They are also gaining significance due to growing vulnerabilities of undersea cables in an increasingly contested international security scenario.²

Quantum encryption is traditionally based on Quantum Key Distribution (QKD), the transmission of quantum entangled photons which act as encryption keys to secure communications. Quantum entanglement or “spooky action at a distance” as per Albert Einstein, refers to the property due to which ‘quantum’ particles dynamically correspond to each other’s ‘quantum’ states even while separated by vast distances. This one-to-one correlation is used for generating encryption keys between the sender and the receiver which collapses when observed by an intruder, again due to the laws of quantum mechanics – thereby creating a secure channel for the transfer of information. The year 2025 being the “International Year of Quantum Technology”, it will be worthwhile to look into how China has developed its quantum communication capabilities, what milestones it has crossed, where it stands among the spacefaring powers, how China may leverage these capabilities for realising its global ambitions, and what it means for the rest of the world.

The Buildup to Micius

The Communist Party leadership in China has been emphasising on the need to create quantum communication networks since 2006, as articulated in the 11th Five Year Plan for 2006-2011 as well as the 12th Five Year Plan for 2012-2016. This quest was given added impetus by the revelations by Edward Snowden about the surveillance activities of the US National Security Agency.³ When Xi Jinping came to power, he worked towards bolstering China’s defences against espionage. In this context, Xi seems to have taken direct interest in realising China ambitions to harness the potential of quantum technologies from the early days of his administration. Xi Jinping and other Politburo members of the Communist Party of China took the initiative to meet with prominent quantum scientists including Pan Jinwei, the scientist behind the Micius project, as early as 2013 to advance the

cause of secure communications using quantum technologies. Subsequently, during the 18th Party Congress’ 5th Plenum in 2015, Xi emphasised the inclusion of quantum communication technologies to be added among the major science and technologies that China would focus on, resulting in its classification as a priority area in China’s 13th Five Year Plan for 2016-2020. This focus has only intensified in the 14th Five Year Plan for 2021-2025.⁴

Since 2003, Pan’s team has been working on developing quantum communication through space, and has also been simultaneously testing and developing terrestrial capabilities.⁵ One early breakthrough by Pan Jianwei’s team was establishing that photons can retain their quantum properties while passing through the atmosphere; clearing the path for developing a quantum communication satellite. Their demonstration in 2005 by transmitting entangled photons over 13km of atmosphere proved this point.⁶ Subsequently, China’s quantum communications roadmap became clear – establishing secure links within cities, extending this to links between cities, and the creation of a global quantum communication satellite network. The first two milestones were achieved with the creation of quantum communication channels within Hefei (the base of Pan’s operations) in 2011 and the establishment of a quantum communications line between Beijing and Shanghai in 2017, respectively. Micius was the first major milestone in the third phase of the roadmap.⁷

Micius was conceived as part of the Quantum Experiments at Space Scale (QUESS) project, which was initiated in 2011 between the Chinese Academy of Sciences (CAS) and the Austrian Academy of Sciences.⁸ The project was headed by Pan Jianwei and his team at the University of Science and Technology of China, through joint collaboration between National Space Science Center, the Shanghai Microsatellite Innovation Research Institute, the Shanghai Institute of Technical Physics, and the Center for Earth Observation and Digital Earth, all of them being constituent units of

the Chinese Academy of Sciences.⁹ With internal consolidation and external outreach, China pushed ahead its ambition to deploy the world's first quantum communication satellite a decade after its conceptualisation.

Micius Unleashed

China launched the Micius on 16 August 2016 aboard a Long March-2D launch vehicle.¹⁰ The Micius satellite consists of a decoy-state QKD transmitter, an entangled-photon source, and a quantum teleportation receiver and analyser. Five ground stations were earmarked within China for linking with the satellite – one near Beijing (Xinglong) and the remaining four in Western interior China (Urumqi, Delingha, Lijiang and Ngari). After the launch of the Micius, the satellite achieved an initial QKD between Chinese ground stations over a distance of 1200 km. In 2017, Micius enabled secure communications between China and Austria by QKD to ground stations in China and Austria, a distance of 7400 km.¹¹ During the 2017 demonstration, a video conferencing was done between Beijing and Vienna involving the directors of the CAS and AAS, demonstrating the first real world application of quantum communication.¹² Further refinements were made to enable direct quantum communication in 2020 between ground stations in China over a distance of 1200 km by simultaneous transmission of entangled photons to the ground stations as opposed to transmission while passing over ground stations during the earlier instances.¹³

At the same time, further advancements were made in the field by Pan's team such as the development of a mobile ground station in 2020.¹⁴ Further, in 2021 China integrated its space component (Micius) with 32 terrestrial nodes on the Beijing-Shanghai Quantum Trunk Line.¹⁵ This quantum communication backbone is the longest such network in the world and it has now extended to include almost all other major cities in the east coast and interior southwest of China like Chongqing, Wuhan, Chengdu, Hong Kong and Macau. The line is being utilised by the government, military and

the banking sector.¹⁶ In 2024, Micius conducted yet another trans-continental communication – the satellite was utilised to enable quantum encrypted communication between China and Russia as part of an agreement reached in 2020.¹⁷ The QKD facilitated by Micius connected Urumqi with Moscow, a distance covering 3800 km.¹⁸ Micius broke its own record with this feat. Hence, within a decade of launching Micius, China successfully built and showcased the core foundations of its quantum space capabilities.

A Deserving Sequel to Micius

Building up on the experience of Micius, China came up with yet another satellite to develop advanced quantum communication satellites in real time. This time, the CAS went for a much smaller satellite, weighing 100kg – the Jinan-1 launched in 2022. Unlike the Micius, both the keys and the data was transferred by the Jinan-1 satellite in real time between the ground stations of Jinan and Urumqi. This was different from how Micius operated. For the Beijing-Vienna secure communication in 2017, almost a month was needed between downloading the keys from the Micius through the quantum channel and conducting the actual video conferencing through the classical channel. Jinan-1 achieved the real time feat by integrating quantum and optical communication channels. China demonstrated this superior capability by simultaneously achieving miniaturisation of the quantum communication satellite and cost-reduction of the mission. Further, Jinan-1 also achieved and demonstrated quantum encrypted 5G communication.¹⁹

In 2025, Jinan-1 broke yet another ground by achieving quantum encrypted communication between two ground stations separated by 10,000 km. An added accomplishment here was that the ground stations were located in China and South Africa – demonstrating China's capacity to conduct inter-continental quantum communication with the Southern Hemisphere. It has to be noted that China's previous inter-continental quantum secure communications were within the Northern Hemisphere.²⁰ Together, the accomplishments of



Source: *The Quantam Insider*

Jinan-1 have validated the capabilities of utilising small satellites for quantum communications at a global scale. Today, China is planning to set up a quantum communications mega-constellation – a large network of quantum communication satellites in the Low Earth Orbits which can augment the country's QKD generation capacity and enable fast and effective communication.²¹ Thus, Jinan-1 has effectively widened China's prospects of commercialising space-based quantum communication at the global level.

Next Phases in China's Quantum Space Roadmap

After achieving successful results with Micius and Jinan-1, the quantum scientific community in China went ahead with charting a parallel space-based quantum communication route. China tested the core components of a space-based quantum communication system in 2025, which is more secure than the QKD method used by Micius. The Quantum Secure Direct Communication (QSDC) has been under development in China since 2002. Unlike QKD which generates keys for transmission of information over conventional channels, the

QSDC directly transmits the information via a quantum channel. It is therefore considered more secure and efficient compared to QKD. The main components of this system were launched this year aboard the Yuanxingzhe-1, a private experimental reusable launch vehicle to test its resilience during ascent. This is one of the key preliminary steps ahead of an eventual construction of a space-air-ground QSDC network.²² Pan has previously projected in 2014 that China will construct a global quantum communication network by 2030.²³

In addition to the plan of launching small quantum satellites to the LEO, China is also aiming to set up quantum satellites in the Geostationary (GEO) orbit so that they are always available and can have global coverage, though their speed and efficiency will be lesser due to the vast distance. The Shijian-20 satellite launched in 2019 conducted experiments on GEO based quantum communication, and represented an initial step on this front.²⁴ Pan Jianwei, in a 2025 conference in Germany commemorating the centenary of quantum mechanics, revealed to the world about China's plan to develop and launch its GEO based quantum communication satellite named "Dawn"

by 2027. Compared to Micius which passes over a ground station only for nine minutes, Dawn would remain stationary relative to the ground station all-day and all-year, providing uninterrupted and continuous coverage.²⁵

China is also planning to establish quantum links between the earth and the moon. This plan was revealed in 2018 and involves stationing a source capable of generating entangled photons at the Lagrange point where the gravitational force of the earth and moon cancels each other out. The source will send the entangled photons to the moon and the earth for QKD. The testing is planned to be carried out during the 2030-35 period.²⁶ This will be important, given China's expansion of its lunar ambitions, competing with America's re-ignited lunar aspirations.

The Drivers of China's Quantum Revolution

A combination of factors has led to China being pushed to the forefront of space-based quantum communication in the 21st century. The personality factor and the national zeitgeist of techno-nationalism have played a key role in China's quantum rise. Pan Jianwei is a central figure in this regard, and is popularly known as the 'father of quantum' in China.²⁷ Pan's connections in Austria were instrumental in striking a collaboration with the Austrian scientific community, due to the fact that Pan conducted his Doctoral research at the University of Vienna and he was a member of the Austrian Academy of Sciences. Pan studied under the guidance of Anton Zeilinger, who was later awarded the Nobel Prize in physics in 2022. Both the Austrian organisations subsequently became partners of the QUESS project. Signals from Micius were monitored through ground stations in Europe by Austrian scientists.²⁸ Pan returned from Austria and played a key role in establishing the CAS Key Laboratory of Quantum Information in 2001, founded by renowned quantum physicist Guo Guangcan at the University of Science and Technology of China in Hefei.²⁹ Pan's return follows the historical precedent of several foreign educated

scientists who returned to build up China's domestic science and technology base – the classic example being Qian Xuesen, the father of China's nuclear, missile and space programmes.

Pan's projects have received strong backing and consistent support from the Party and government leadership in China. From the very beginning, the Xi administration has granted a high degree of patronage to quantum research and development. The quantum revolution in China has also strived to live up to the strong support and trust placed in it by the national leadership. In particular, Pan's team had set up quantum encrypted communication links for important national events such as the 18th Party Congress in 2012 where Xi was made the General Secretary.³⁰ In his article in the Party's Science and Technology Daily, he admitted that "I was deeply inspired and excited to feel the General Secretary's attention to quantum technology up close, and I became more determined to tackle key problems and innovate in the field of quantum technology."³¹ The quantum revolution in China also has strong nationalist character. For instance, in Pan's interview to MIT Technology Review, he reflected on the opportunity provided by Quantum technology for China to advance its global leadership profile – "We were only the follower and the learner at the birth of modern information science...Now we have a chance ... to be a leader."³² In fact, naming the satellite as Micius was an exercise in techno-nationalism. Micius is the Latin name for Mozi, the ancient Chinese philosopher who was also known for his scientific enquiry into optics. It clearly underscores the national narrative of restoring China's ancient prowess in science and technology.

Today, most of the research and development in quantum technologies in China is dominated by the state sector, as China is taking a strategic approach on the path towards quantum leadership in the world. The nucleus of China's quantum communication revolution is undoubtedly the University of Science and Technology of China based in Hefei, which is now China's 'quantum capital'.³³ Apart from universities, various state

institutes have been working on space based quantum communication, such as the 30th and 38th Research Institute of the China Electronics Technology Group Corporation.³⁴ Very few private companies have a significant presence in China's quantum communications landscape. One of the leading firms in this regard is QuantumCTek which develops QKD systems for various sectors – whose prominence can be understood due to the fact that the organisation was founded by Pan Jianwei and Guo Guanqun. Its QKD systems were instrumental in constructing the Beijing-Shanghai Quantum Communication Backbone.³⁵ Thus, a clear and cohesive nexus between specific personalities, national leadership and the state-led academic and industrial sectors can be seen as the crucial factor shaping the rise of China's quantum space capabilities.

The Quantum Space Race

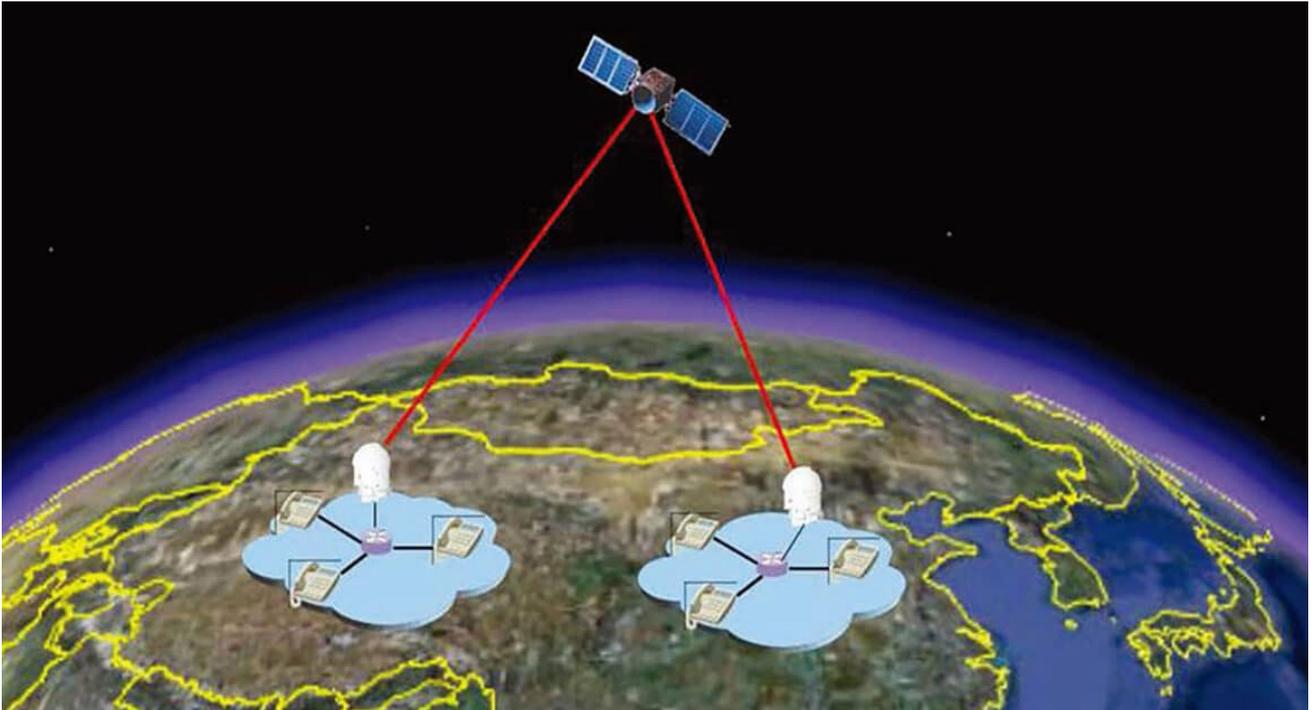
With China leading the world in charting the quantum communication trajectory, other spacefaring nations have intensified the development of their quantum capabilities in space. The European Space Agency (ESA) and Canadian Space Agency (CSA) have their own plans of launching quantum communication satellites within the next couple of years. The ESA is planning to launch Eagle-1, a satellite being developed by a Luxembourg based satellite consortium, which will have pan-European coverage. Meanwhile, the CSA is planning to launch QEYSSat (Quantum EncRYption and Science Satellite), a microsatellite being developed by Honeywell in collaboration with several academic and governmental institutions in North America, Europe and Japan. Unlike Micius, the quantum key transmitters in this project will be ground based. Japan (The SOCRATES satellite launched in 2014 and the SeCRETS device installed in the International Space Station in 2023 led by National Institute of Information and Communications Technology) and Singapore (SpooQy-1 CubeSat developed by the National University of Singapore) have also done some precursor experiments on quantum space communications.³⁶

The US has so far not released any plans to launch dedicated quantum communication satellites, as it is supposedly focusing on post-quantum cryptography (PQC) rather than quantum encryption. PQC involves the development of quantum-resistant algorithms which cannot be cracked by quantum computers.³⁷ However, it needs to be noted that China itself is currently the dominant player in PQC.³⁸ Nevertheless, since 2018, NASA started working on enabling quantum communication between the International Space Station (ISS) and ground stations.³⁹ In this context, experiments on the Space Entanglement and Annealing QUantum Experiment (SEAQUE) developed by the University of Illinois Urbana-Champaign has been carried out in the ISS since 2024 to test quantum entanglement.⁴⁰

India has not announced any plans to deploy quantum satellites, rather there are preliminary experiments being conducted on enabling quantum communications for long distances at the terrestrial level. So far, three major instances of QKD have been achieved terrestrially. The first was in 2021 at Raman Research Institute in Bengaluru, and the second was in 2022 by the Space Applications Centre and Physical Research Laboratory in Ahmedabad; where QKD was carried out through atmosphere for 50 meters and 300 meters, respectively. The third instance was in 2024 where scientists from the Indian Institute of Technology Delhi achieved QKD for 100 km through optic fibre. There are some estimates that India might deploy its quantum communication satellite by the end of this decade.⁴¹ Notably, other countries have tried to play catch-up with China, but have so far been lagging behind it by more than a decade.

Conclusion

There are a few and emerging areas where China is leading the world in technological advancements. Among the quantum technologies, it is only in Quantum communication that China is ahead of the US. It is at par with the US in quantum sensing and is behind the US in quantum computing.⁴² The fast development of a quantum



Source: PostQuantum

communication ecosystem within China can give it a relative advantage over other countries in terms of possessing an exceptionally secure critical information infrastructure. It would introduce a huge asymmetry in information security between China and its adversaries. However, the preponderance of the state sector and the lack of private investment in the field may prove to be a major impediment for the future growth of quantum communications in China.⁴³ Yet another growing challenge to China's development of its quantum space power could be the growing fragmentation of global technology and supply chains because of deepened geopolitical competition. It must be noted that the very symbol of China's quantum revolution – the Micius satellite – was enabled by international exchanges and collaborations between scientific community in China and the West.

China's quantum space capabilities have not just augmented its national security, but have also opened up a wide array of commercial, military and diplomatic possibilities for it to enhance its international standing – and these will have ramifications across the world. For instance, China will undoubtedly be the best placed to be the global leader in quantum communications

standards. China has already come up with several domestic standards for QKD in the telecom industry, and it is also working within the International Telecommunication Union for developing standards for QKD.⁴⁴ Further, the realisation of a global quantum communication satellite network can open up a nascent secure communication market for China across the world, and will deliver it the first mover advantage in dominating and shaping this market. However, this would lead to a significant dual-use related security concerns visible in other sectors of China's commercial engagements with other countries. This is because the development of China's civil and commercial technologies are today driven by the strategic logic of Military-Civil fusion, where the distinction between the military and civil domains are effectively non-existent. Given these possibilities, governments and corporations across the world will be increasingly faced with complex questions about how to deal with China as a quantum space power. •

By Dr. Anand V.

Endnotes

1. Gabriel Popkin, "China's Quantum Satellite Achieves 'Spooky Action' at Record Distance," *Science*, June 15, 2017, <https://www.science.org/content/article/china-s-quantum-satellite-achieves-spooky-action-record-distance>.
2. Daria I. Silkova and Jonathan M. Reed, "The Prospect of Quantum Technologies in Space for Strategic Security," *Space Policy* (2023), <https://www.sciencedirect.com/science/article/pii/S0265964623000255>, 5.
3. Elsa B. Kania and John K. Costello, "Quantum Leap (Part 1): China's Advances in Quantum Information Science," *Jamestown China Brief* 16, no. 18 (December 5, 2016), <https://jamestown.org/program/quantum-leap-part-1-chinas-advances-quantum-information-science-elsa-kania-john-costello/>.
4. Ciel Qi, "China's Quantum Ambitions: A Multi Decade Focus on Quantum Communications," *Yale Journal of International Affairs*, February 2, 2024, <https://www.yalejournal.org/publications/chinas-quantum-ambitions>
5. Kania and Costello, "Quantum Leap (Part 1)"
6. Ling Xin, "New Dawn: Pan Jianwei Reveals High Orbit Quantum Satellite for Global Network," *South China Morning Post*, June 26, 2025, updated June 26, 2025, <https://www.scmp.com/news/china/science/article/3315963/new-dawn-pan-jianwei-reveals-high-orbit-quantum-satellite-global-network>.
7. Qi, "China's Quantum Ambitions"
8. Kania and Costello, "Quantum Leap (Part 1)"
9. Chinese Academy of Sciences, "China Launches World's First Quantum Communication Satellite 'Micius,'" *Special Reports (Chinese Academy of Sciences)*, October 19, 2016, https://english.cas.cn/Special_Reports/rd/2016/202210/t20221019_321851.shtml
10. Ibid.
11. Ben Pilkington, "How the 'Mozi' Satellite Grants Quantum Security from Space," *AZoQuantum*, March 24, 2022, <https://www.azoquantum.com/Article.aspx?ArticleID=308>.
12. Chinese Academy of Sciences Headquarters, "China Builds World's First Space Ground Integrated Quantum Communication Network," *Lab Manager* (September 29, 2017), <https://www.labmanager.com/china-builds-world-s-first-space-ground-integrated-quantum-communication-network-6409>.
13. Pilkington, "Quantum Security from Space"
14. Marc Julienne, *China's Quest for a Quantum Leap*, *ReConnect China Policy Brief No. 15* (Ghent University, October 2024), https://www.reconnect-china.ugent.be/wp-content/uploads/2024/10/Reconnect-China_Policy-Brief-15_Chinas-Quest-for-a-Quantum-Leap.pdf
15. Qi, "China's Quantum Ambitions"
16. Julienne, *China's Quest*
17. Pilkington, "Quantum Security from Space"
18. Matt Swayne, "China and Russia Test Quantum Communication Link," *The Quantum Insider*, January 2, 2024, <https://thequantuminsider.com/2024/01/02/report-china-and-russia-test-quantum-communication-link/>.
19. Stephen Chen, "China Launches New Satellite in 'Important Step' toward Global Quantum Communications Network," *South China Morning Post*, July 27, 2022, <https://www.scmp.com/news/china/science/article/3186802/china-launches-new-satellite-important-step-towards-global>.

20. Xinhua, "Chinese-led team achieves world's first 10,000 km quantum secured communication," China Voices, March 21, 2025, https://english.scio.gov.cn/chinavoices/2025-03/21/content_117778711.html.
21. Chen, "China Launches"
22. Ling Xin, "China Scientists Put Direct Quantum Communications Tech to Test in Space Flight," South China Morning Post, June 6, 2025, <https://www.scmp.com/news/china/science/article/3313133/china-scientists-put-direct-quantum-communications-tech-test-space-flight>.
23. China to Build Global Quantum Communication Network in 2030, Chinese Academy of Sciences, February 17, 2015, https://english.cas.cn/newsroom/archive/news_archive/nu2015/201502/t20150217_140835.shtml
24. Chen, "China Launches"
25. Xin, "New Dawn"
26. Ibid.
27. Martin Giles, "The Man Turning China into a Quantum Superpower," MIT Technology Review, December 19, 2018, <https://www.technologyreview.com/2018/12/19/1571/the-man-turning-china-into-a-quantum-superpower/>.
28. Austrian Academy of Sciences, "First Quantum Satellite Successfully Launched," Austrian Academy of Sciences, August 15, 2016, <https://www.oeaw.ac.at/en/first-quantum-satellite-successfully-launched>
29. Kania and Costello, "Quantum Leap (Part 1)"
30. Ibid.
31. Julienne, China's Quest
32. Giles, "The Man"
33. Hodan Omaar and Martin Makaryan, "How Innovative Is China in Quantum?" Information Technology and Innovation Foundation (ITIF), September 9, 2024, <https://itif.org/publications/2024/09/09/how-innovative-is-china-in-quantum/>.
34. Elsa B. Kania and John K. Costello, "Quantum Leap (Part 2): Strategic Implications of Quantum Technologies," Jamestown China Brief 16, no. 19 (December 12, 2016), <https://jamestown.org/program/quantum-leap-part-2-strategic-implications-quantum-technologies/>.
35. Omaar and Makaryan, "China in Quantum"
36. Rebecca Pool, "The Global Quantum Space Race: As China Edges Ever Closer to an Unhackable, Satellite Based Quantum Internet," Photonics Focus, January/February 2025, <https://spie.org/news/photonics-focus/janfeb-2025/racing-for-quantum-supremacy-in-space>.
37. Ibid.
38. Julienne, China's Quest
39. Karen Kwon, "China Reaches New Milestone in Space Based Quantum Communications," Scientific American, June 25, 2020, <https://www.scientificamerican.com/article/china-reaches-new-milestone-in-space-based-quantum-communications/>
40. Briley Lewis, "Scientists Test Quantum Mechanics in Outer Space," American Physical Society News, April 15, 2025, <https://www.aps.org/apsnews/2025/04/quantum-mechanics-in-outer-space>.
41. Jacob Koshy, "India Could Achieve Quantum Communication Using Satellite by 2030, Says IIT Delhi Professor," The Hindu, June 23, 2025, <https://www.thehindu.com/scitech/science/with-money-and-manpower-india-could-achieve-quantum-satellite-communication-by-2030-says-expert/article69724357.ece>.
42. Omaar and Makaryan, "China in Quantum"
43. Julienne, China's Quest

44. Sorina Teleanu, The Geopolitics of Digital Standards: China's Role in Standard-Setting Organisations (Geneva Internet Platform; DiploFoundation; Multilateral Dialogue Konrad Adenauer Stiftung, December 2021), <https://dspace.diplomacy.edu/handle/123456789/253>.

ABOUT THE AUTHOR



Dr. Anand V. is an Assistant Professor (Senior Scale) at the Department of Geopolitics and International Relations, Manipal Institute of Social Sciences Humanities and Arts, Manipal Academy of Higher Education (Manipal, India) from where he had completed both his Ph.D. and Masters in Geopolitics and International Relations. He is also Coordinator of the China Study Centre. Dr. Anand teaches subjects related to the theoretical and well as the science and technology dimensions of geopolitics at the Masters level, and also guides Ph.D. scholars. His areas of research include China's strategic culture and capabilities; China's geostrategic approaches to various regions as well as the politics and security of technological domains like outer space. Dr. Anand's doctoral thesis was on China's Strategic Culture, and involved field visit to China. He is also an alumni of the US Department of State's distinguished International Visitor Leadership Programme, wherein he visited the US for a month-long project related to the Indo-Pacific.

Copyright © 2025 Chintan Research Foundation

Recommended Citation

Anand, V (2025). China's Ascent as a Quantum Space Power, Chintan Research Foundation (CRF), New Delhi



Chintan
Research
Foundation

ELEVATING IDEAS | EMPOWERING PEOPLE

ABOUT CRF

CRF is an independent think tank committed to advancing innovation and shaping policy through rigorous research and thought leadership. It conducts comprehensive policy and market research to support informed decision-making, engaging with policymakers and stakeholders through discussions, events, and workshops.



1st Floor, Bharti Crescent Building, 1 Nelson Mandela Marg,
Vasant Kunj Phase II, New Delhi - 110070



info@crfindia.org



+91 9311630957, +91 6358871398



www.crfindia.org