

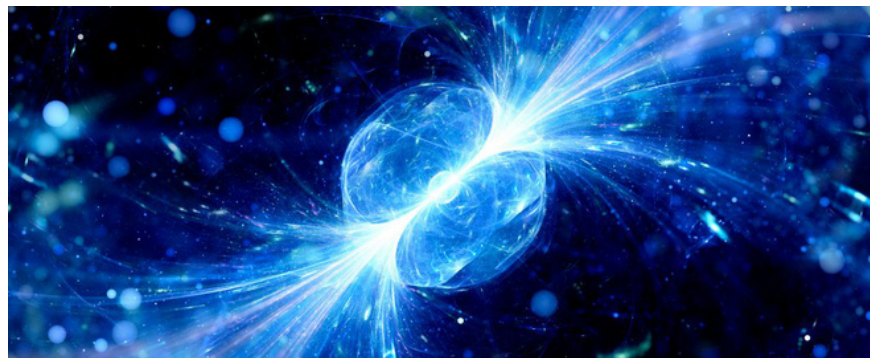
# For the first time successfully implementing underwater quantum teleportation, China took the lead in the quantum communication race

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In the recent test, Chinese researchers succeeded in sending quantum information (also known as quantum displacement) between two tangled particles through seawater. This is the first time we can make quantum communication underwater.

1. Getting the light to stop, an important step to making quantum computers
2. 4 cosmic phenomena have the speed of traveling through the speed of light

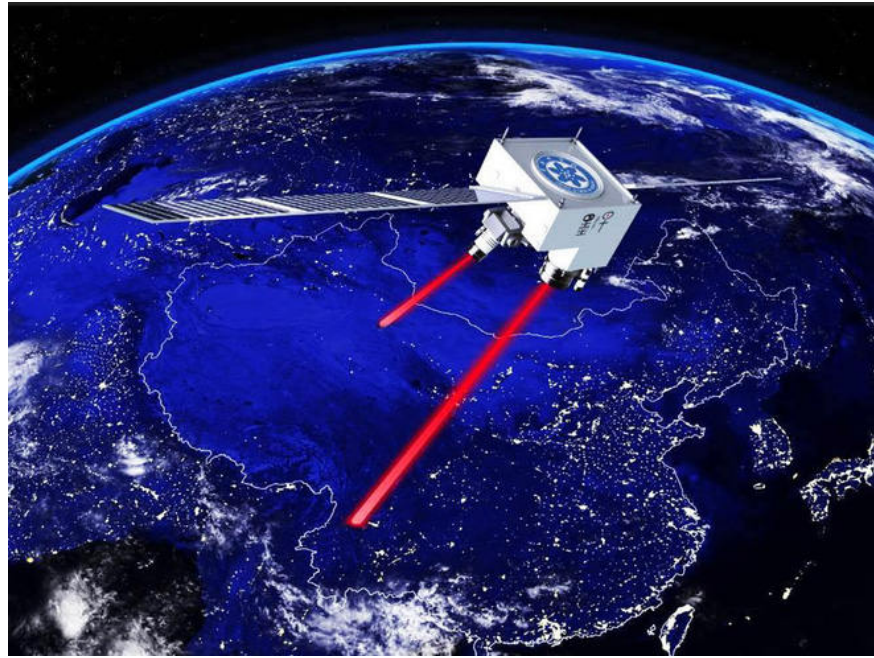
In this test, the information was transferred a distance of 3.3 meters in a saltwater tank. Based on this success, the researchers believe that this technique can be applied in normal seawater conditions to transmit encrypted information, which cannot be hacked over a distance of 900m.



This means a lot, it opens us up to an extremely secure way of communicating, and perhaps it's the most secure way of encrypting messages today.

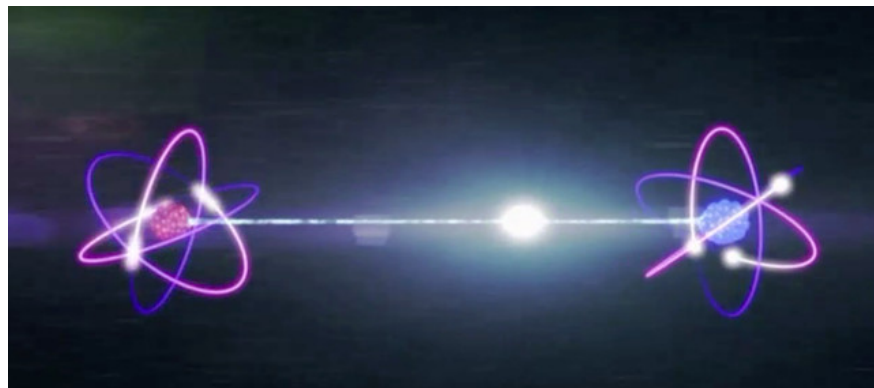
Quantum entanglement or quantum entanglement means that somehow two particles of matter are connected, anything that happens to the A particle will affect exactly the same as the B particle, regardless of how far apart it is. Each other hundreds and even thousands of light years, they continue to keep the link.

Based on that phenomenon, scientists experimented with transmitting information by making a particle spin according to certain rules and making the other particle follow. They hope, this method can help transmit information over a great distance safely.



In the past scientists have successfully tested quantum displacement in Space, from the Earth to satellites and vice versa, but this is the first time anyone has done it in water, anything. What goes through this environment is also scattered.

In this test, researchers at Shanghai Jiaotong University took seawater, filling a 3 meter tank. They shoot a ray of light through a crystal to create a pair of tangled photons, no matter how polarized a photon is, the other photon will automatically reverse polarity. The scientists placed two photons in one pair placed at the ends of the seawater tank. The results show that two photons can transmit information to each other up to 98% accurate, which means the method of quantum information transmission and the construction of an underwater quantum communication network is feasible. .



Many more tests are still needed to investigate whether underwater quantum movement works in natural environments, and how far it can operate.

Chinese scientists estimate the maximum distance the message can be 885m. Meanwhile, according to a contingent of another team, the maximum distance is only 120m.

Jeffrey Uhlmann, a physicist at the University of Missouri, Columbia, said that seawater absorbs light, so prolonging the distance will be very difficult.

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