The Center for Scientific Communication MITs said that university experts developed an innovative architecture of quantum processors that solve the key problem of modern quantum computers – undesirable interactions between cubes in standby mode. The solution allows you to perform operations with an accuracy of 98% at a speed of 60 nanoseconds.

The main difficulty in creating multi -cubic systems is the need to balance between strong interaction for operations and the weak – in downtime mode. Russian physicists have proposed a design of two superconducting transmons, connected by a special waveguide with a quantum control device.

As the researcher Elena Egorova explained, the new architecture is less sensitive to production errors in comparison with existing analogues. This is especially important, since the random interactions of cubes with the environment lead to the loss of data and the destruction of quantum conditions.

Development has already been successfully applied when creating an eight -cubic processor. An important advantage of the technology is the lack of rigid requirements for the accuracy of the manufacture of components, which simplifies the scaling of systems.

Scientists note that their approach opens up prospects for creating stable multi -cubic processors that can perform complex calculations.