# Article information:

Physicists reverse time using quantum computer
<https://phys.org/news/2019-03-physicists-reverse-quantum.html>

# Article summary:

1. Physicists from the Moscow Institute of Physics and Technology, along with colleagues from the US and Switzerland, have reversed time using a quantum computer.

2. The researchers calculated the probability of an electron in empty interstellar space spontaneously travelling back into its recent past.

3. The time reversal algorithm used in the experiment could be useful for making quantum computers more precise by testing programs and eliminating noise and errors.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article discusses a recent study published in Scientific Reports, which claims that physicists have successfully reversed time using a quantum computer. The researchers from the Moscow Institute of Physics and Technology collaborated with colleagues from the US and Switzerland to create an artificial state that evolves in the opposite direction to the thermodynamic arrow of time. They also calculated the probability of an electron in empty interstellar space spontaneously traveling back into its recent past.

The article provides a detailed explanation of how the experiment was conducted, including four stages involving two or three superconducting qubits. The researchers found that in 85% of cases, the two-qubit quantum computer returned to its initial state after being reversed in time. However, when three qubits were involved, more errors occurred, resulting in a roughly 50% success rate.

While the article provides a clear explanation of the study's findings and methodology, it does not explore any potential biases or limitations of the research. For example, it is unclear whether there are any risks associated with reversing time using a quantum computer or whether there are any ethical considerations that need to be taken into account.

Additionally, while the article notes that more sophisticated devices are expected to reduce error rates in future experiments, it does not provide any evidence for this claim or explore potential counterarguments. Furthermore, while the article suggests that the time reversal algorithm could be useful for making quantum computers more precise by eliminating noise and errors, it does not provide any evidence to support this claim.

Overall, while the article provides an interesting overview of recent research on reversing time using a quantum computer, it would benefit from exploring potential biases and limitations of this research and providing more evidence to support some of its claims.

# Topics for further research:

* Risks associated with reversing time using a quantum computer
* Ethical considerations of time reversal experiments
* Limitations of the study on reversing time using a quantum computer
* Counterarguments to the claim that more sophisticated devices will reduce error rates
* Evidence supporting the claim that time reversal algorithms can eliminate noise and errors in quantum computers
* Implications of time reversal experiments for the field of quantum computing

# Report location:

<https://www.fullpicture.app/item/6e18e86d9887b61990c63dac12eb4a32>