



EQUS

QUANTUM GAMES

Develop a video game based on quantum physics to win!

In the first round of entries, you must submit a short video (up to 5 minutes) showcasing game play. If your team is shortlisted, you will be invited to submit the full playable game. For more details please visit

www.equs.org/games

or contact: m.kewming@uq.edu.au

Submissions open: 2 September 2019

Submissions close: 31 January 2020

First prize: \$1500

Second Prize: \$500



EQUS

Australian Research Council
Centre of Excellence for
Engineered Quantum Systems

Quantum games

<https://vimeo.com/359440927>

Quantum mechanics in Pop culture



Quantum mechanics in Pop culture

“Quantum fluctuation messes with the Planck scale, which then triggers the Deutsch Proposition. Can we agree on that?” - Tony Stark (Iron man)

“There’s nothing in my work that is generally known as the ‘Deutsch Proposition’ ”- David Deutsch

It’s still a great movie!!

Quantum mechanics in Pop culture



Can physics be portrayed ‘more correctly’?

Superposition

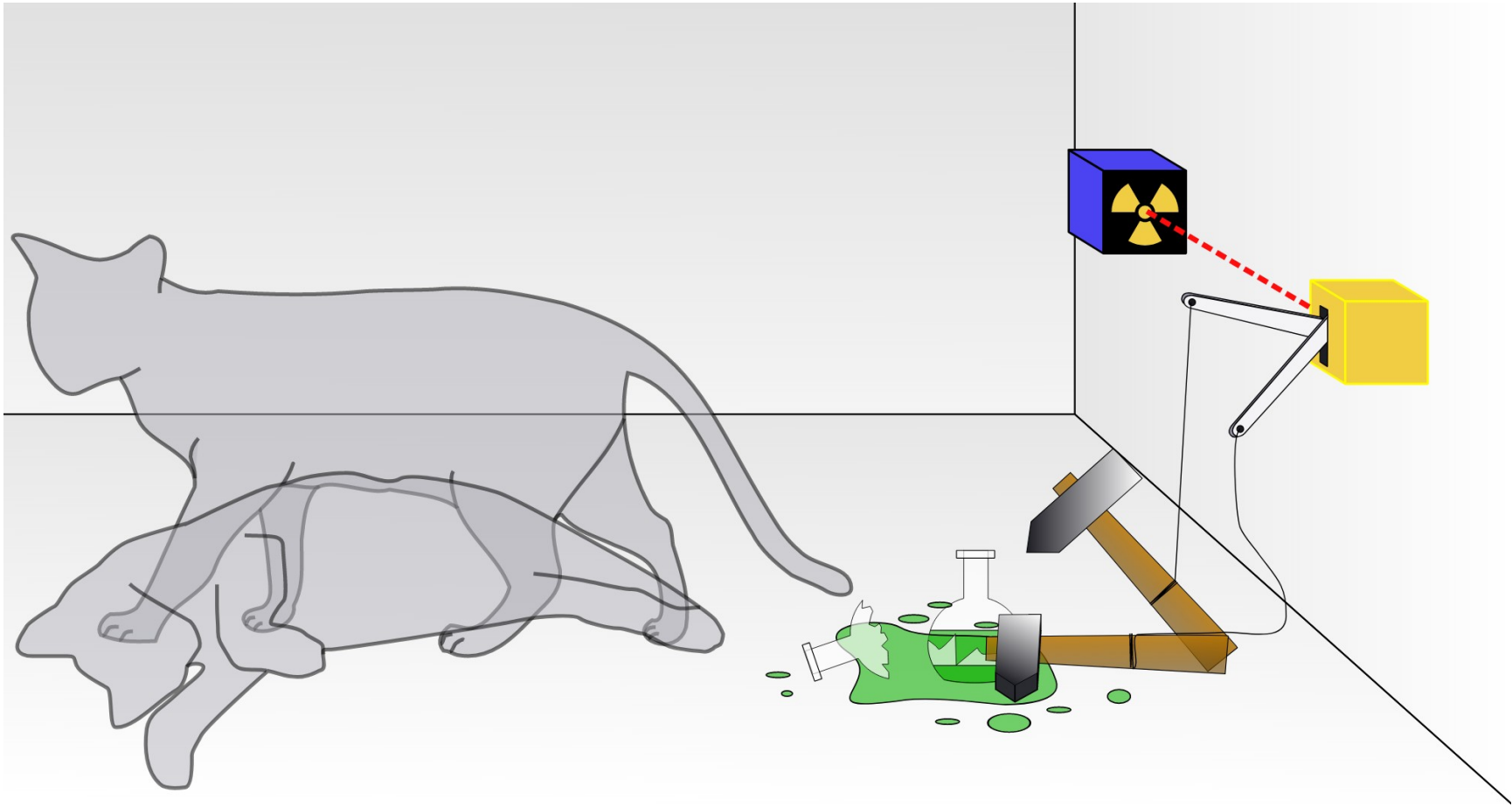


Ghost's unstable state

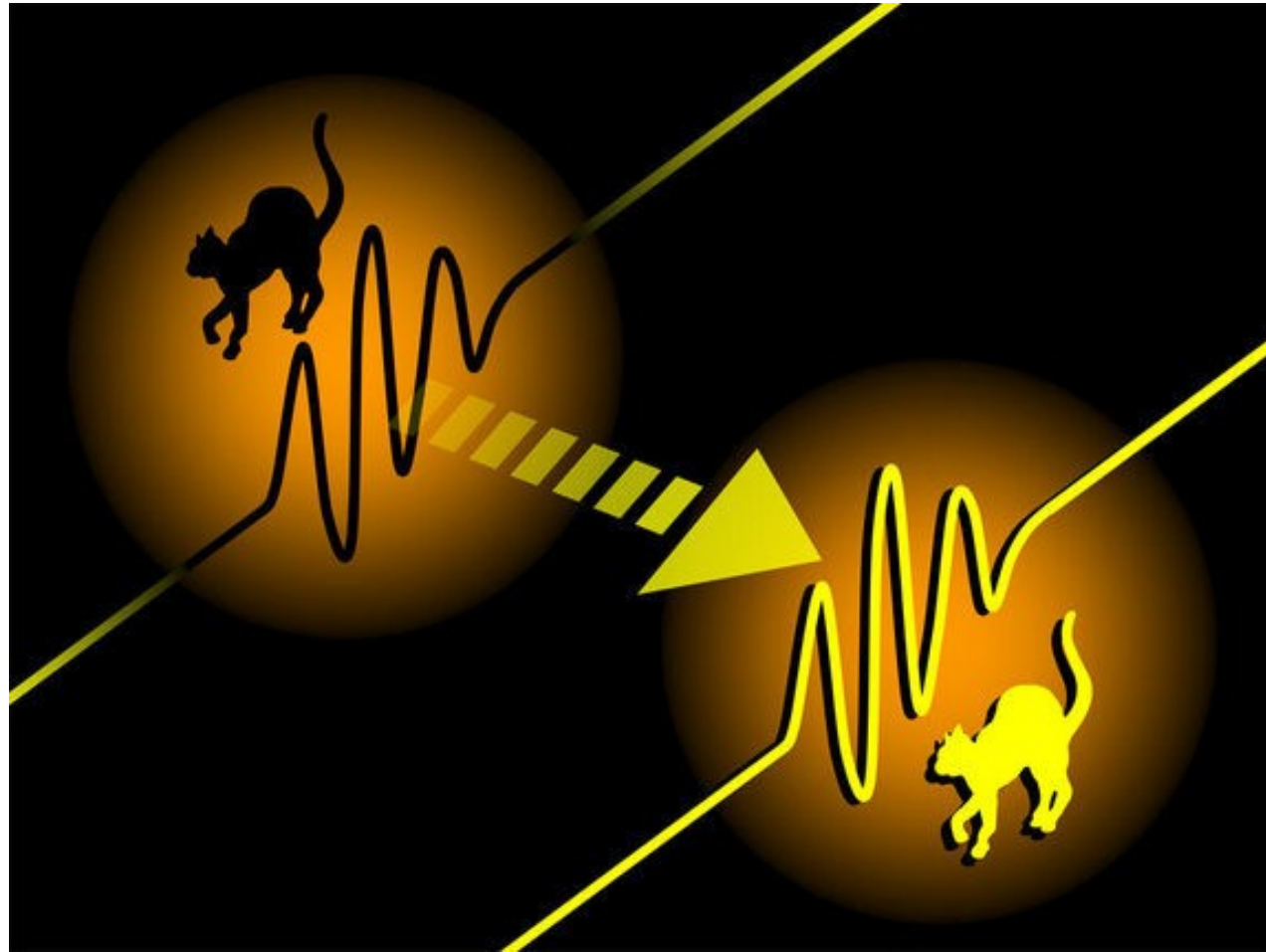
Destructive/Constructive interference is a real thing

Quantum superposition

Superposition



Superposition



Entanglement



Entanglement

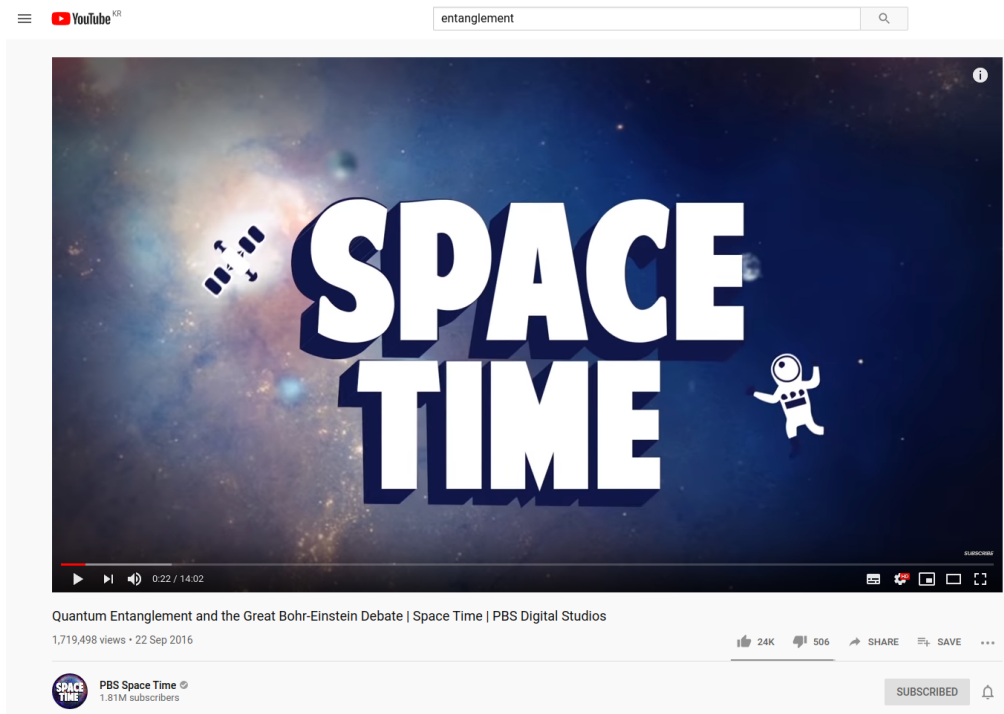


Two particles become intrinsically connected

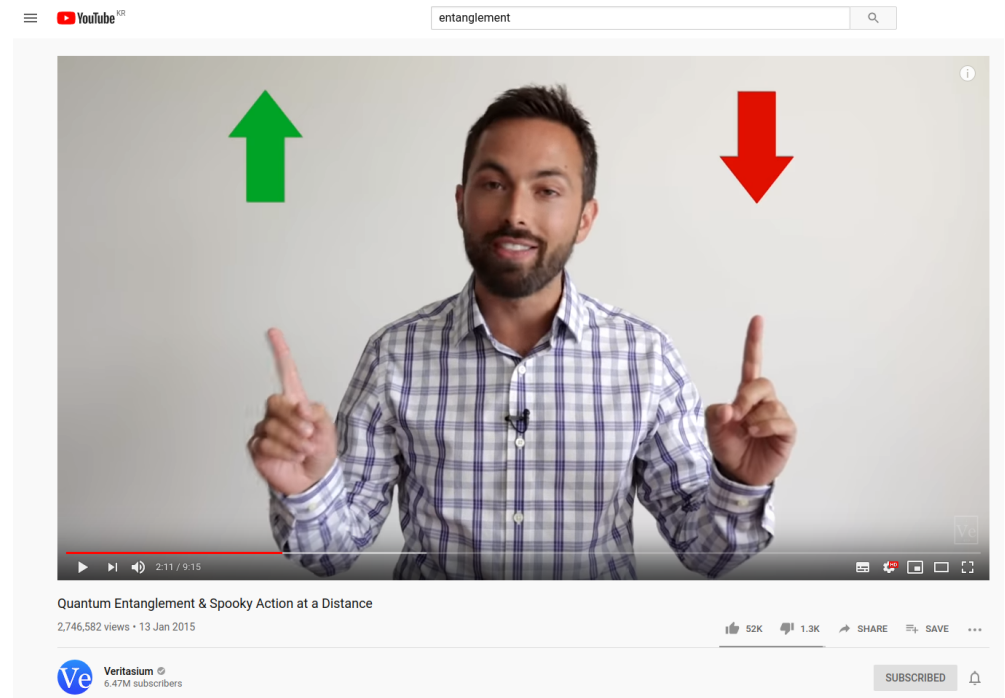
Spooky action at a distance

I haven't seen a creative take on entanglement!

Entanglement



PBS spacetime



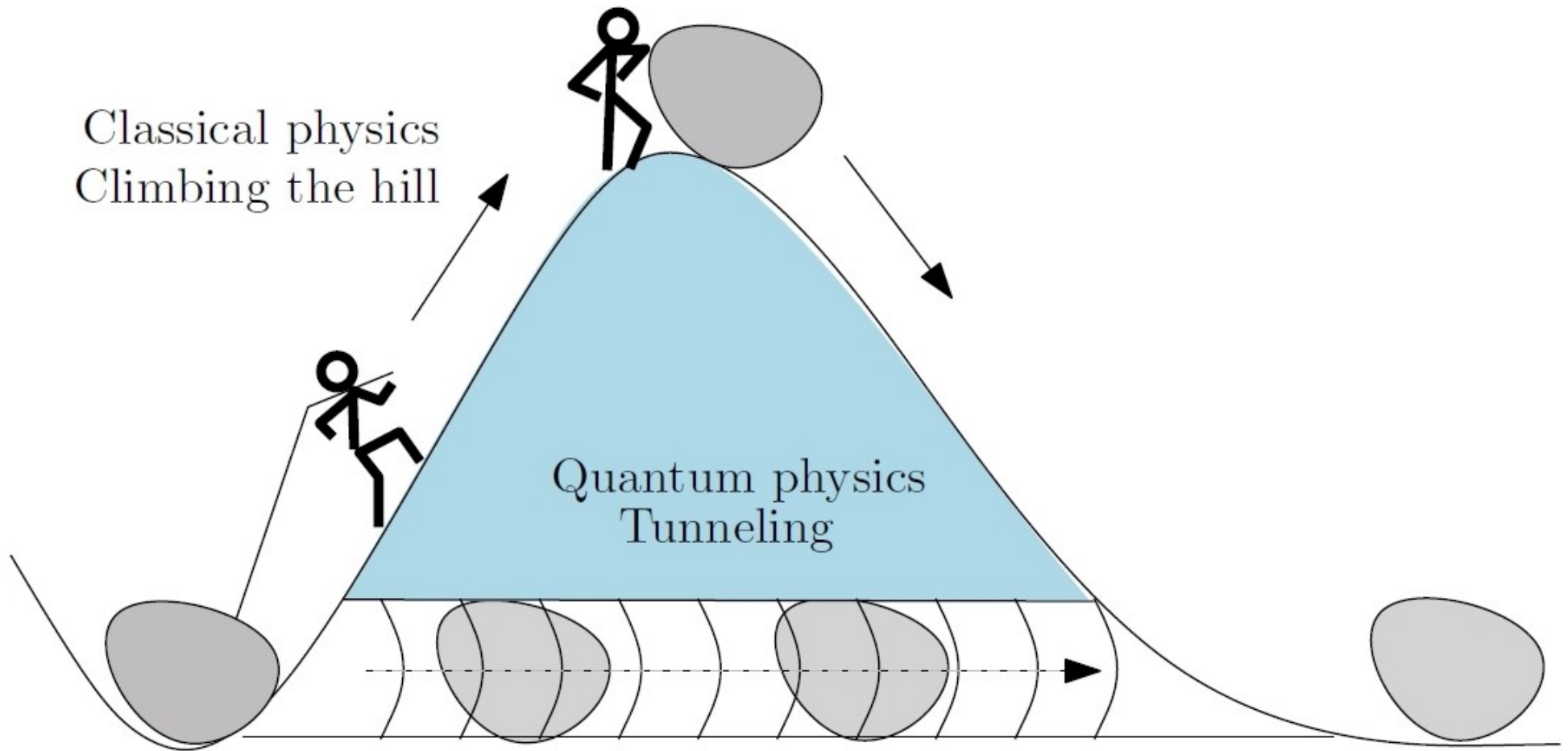
Veritasium

Tunnelling



Teleportation = Tunnelling?

Tunnelling



Time travel?

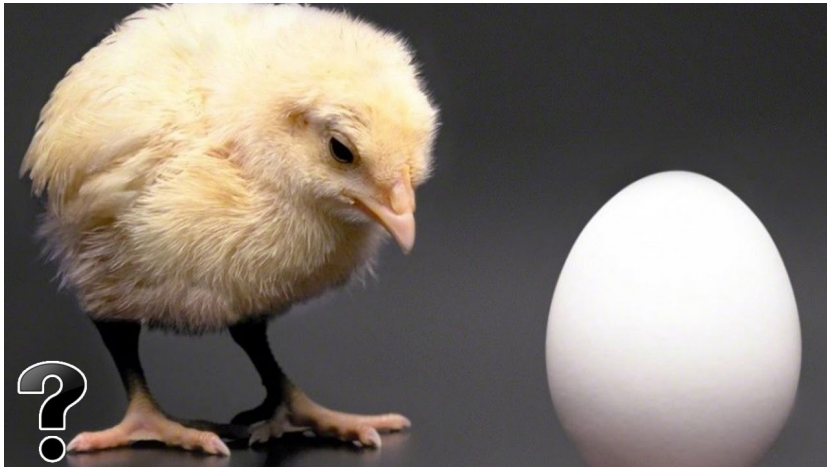


Time travel?

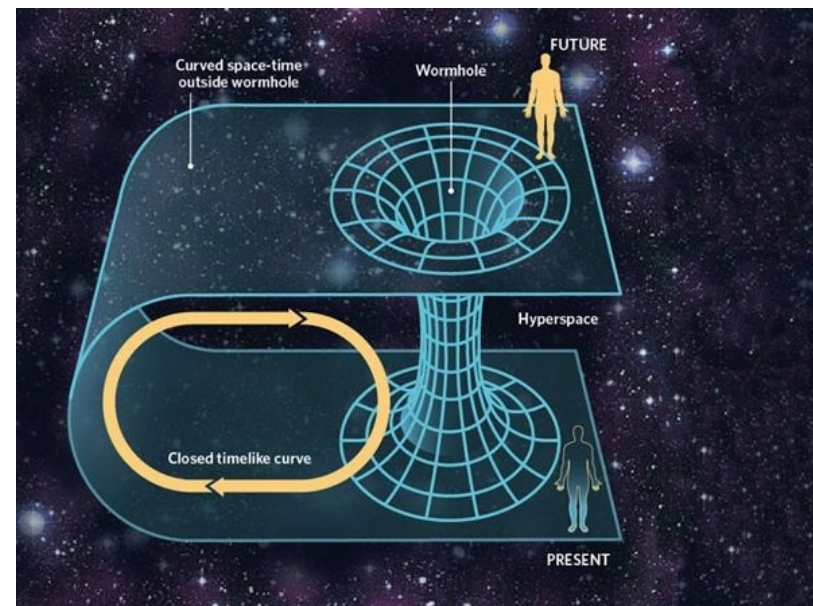
Causal order:

$A \rightarrow B$ or $B \rightarrow A$

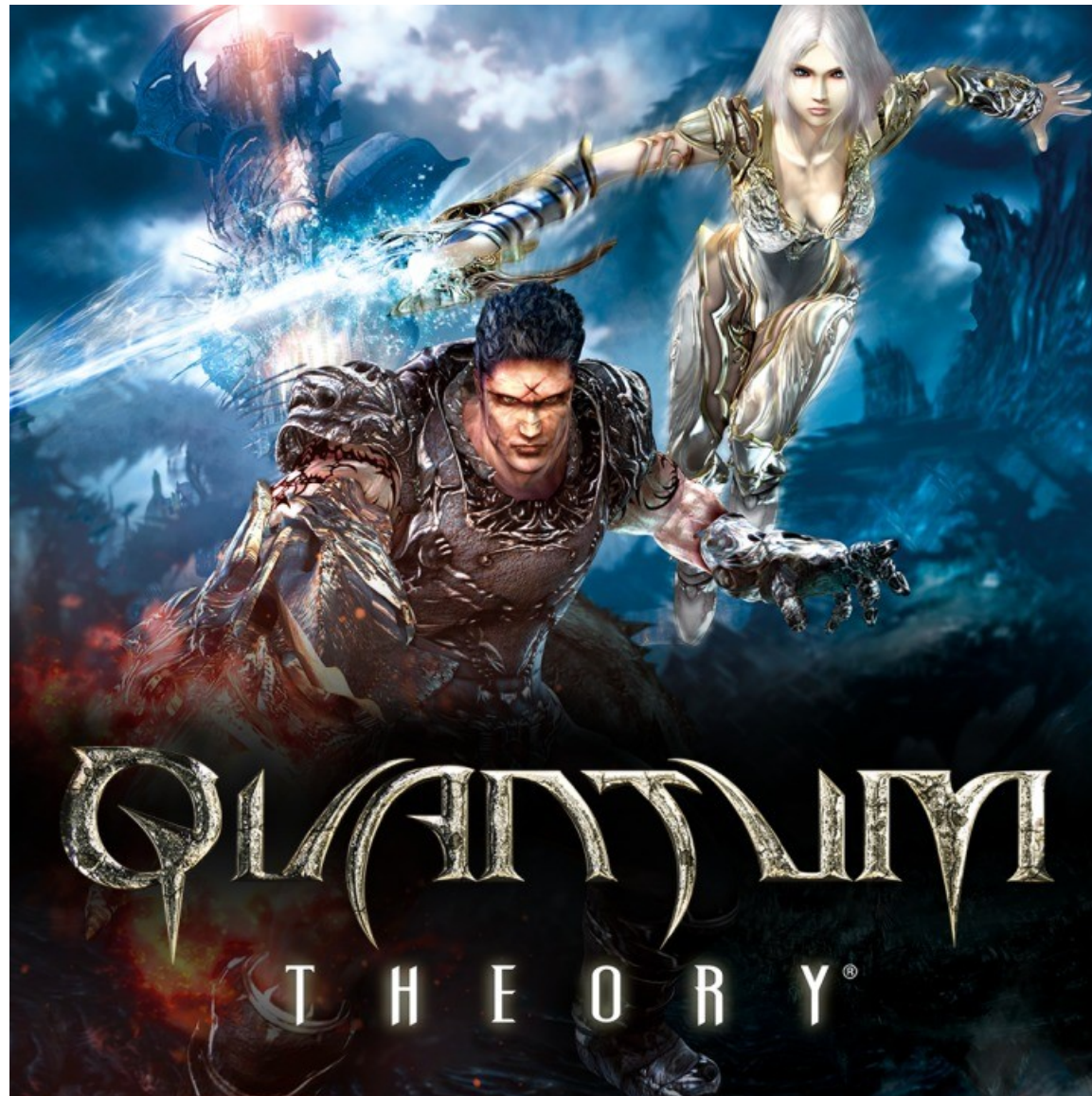
**Both at the same
time?**



Closed Time like curves:
Closed loops in space time
Wormhole territory



Quantum mechanics and Gaming



Quantum mechanics and Gaming

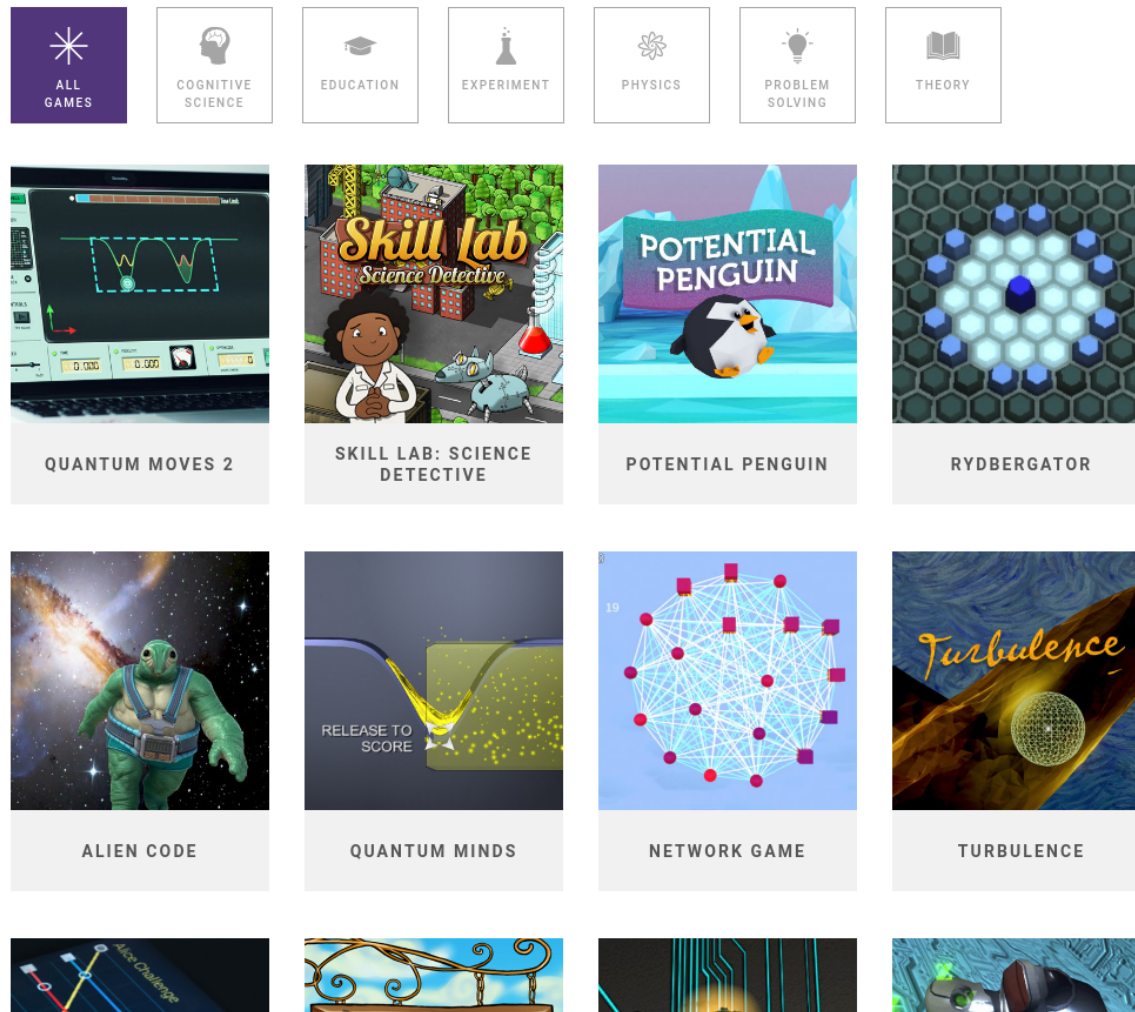
<https://www.youtube.com/watch?v=WM8iVi8t6Nk>



Video Games That Teach You QUANTUM PHYSICS!

Quantum mechanics and Gaming

<https://www.scienceathome.org/>



Quantum mechanics and Gaming



<https://youtu.be/QO7GiIF6XIM>

The Big Bell test



<https://thebigbelltest.org/>

The Big Bell test

nature > letters > article

MENU ▾

nature

Letter | Published: 09 May 2018

Challenging local realism with human choices

The BIG Bell Test Collaboration

Nature 557, 212–216 (2018) | [Download Citation](#) ⚡

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i A Publisher Correction to this article was published on 24 September 2018

i This article has been updated

<https://thebigbelltest.org/>

Can you think of a game based on Quantum Mechanics?

Science is already mind bending!

Great marketing

It can be educational too!

It could help do science!