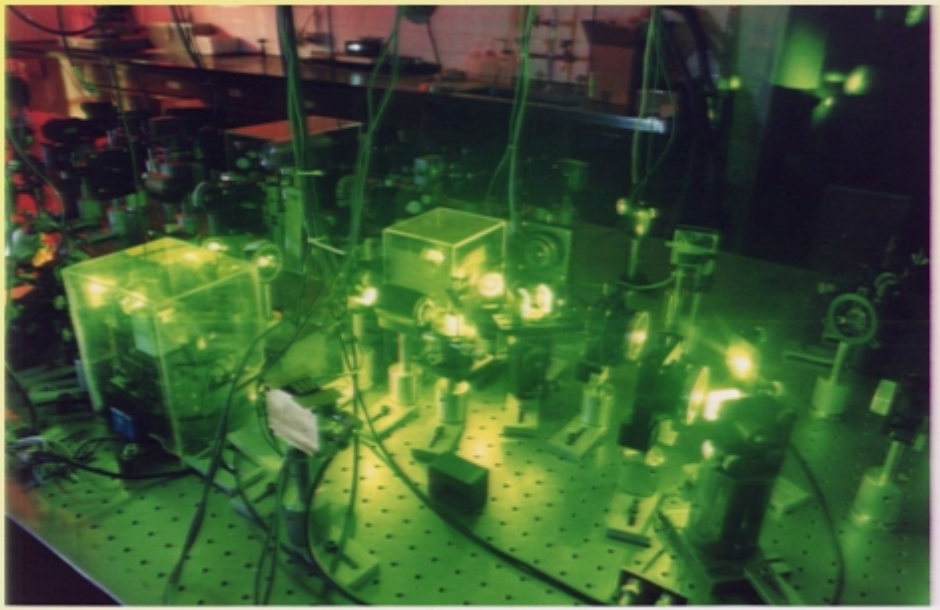
Title: Quantum Teleporters

Date: Aug 12, 2005 10:35 AM

URL: http://pirsa.org/05080006

Abstract:

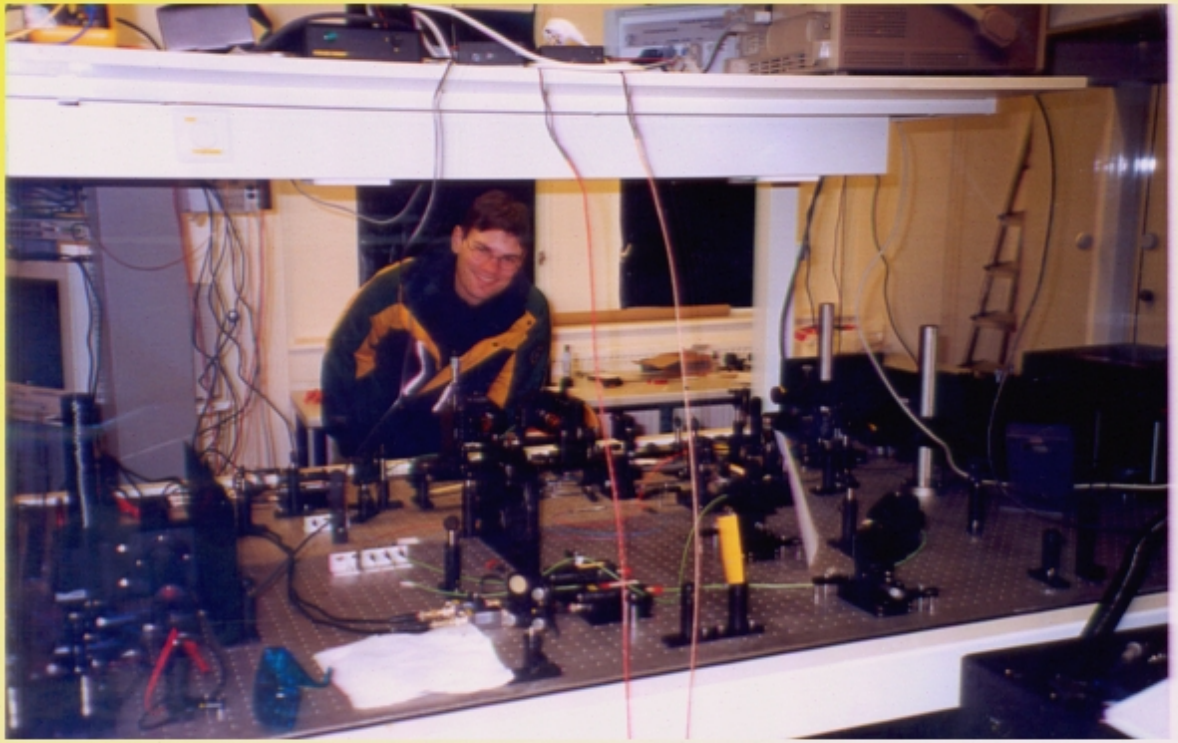
Quantum teleporters



- As fanciful as it might sound, scientists have actually managed to perform teleportation with atoms and photons.

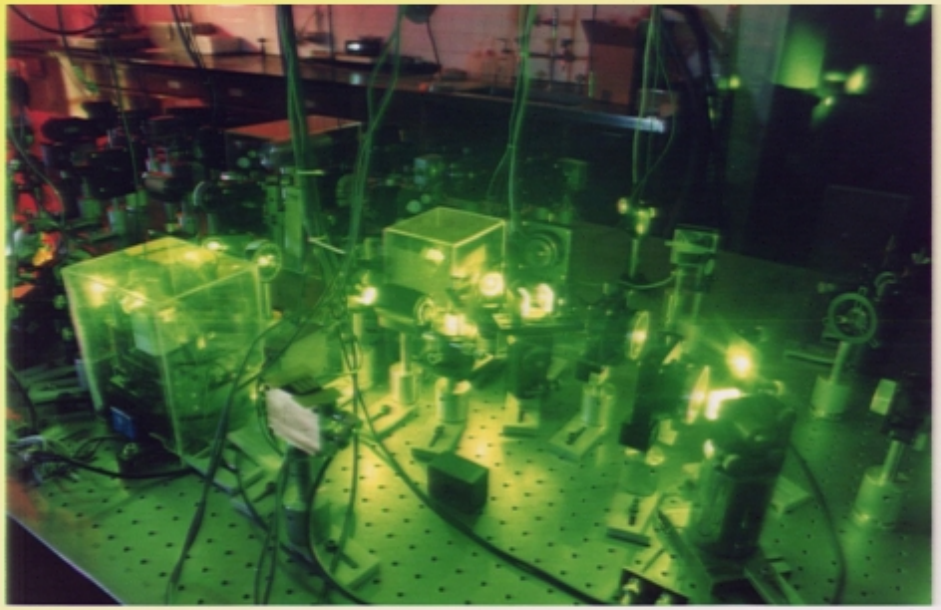
- Up to distances of 600 metres.

1997: Vienna, Austria
a single photon (About 50 cms)



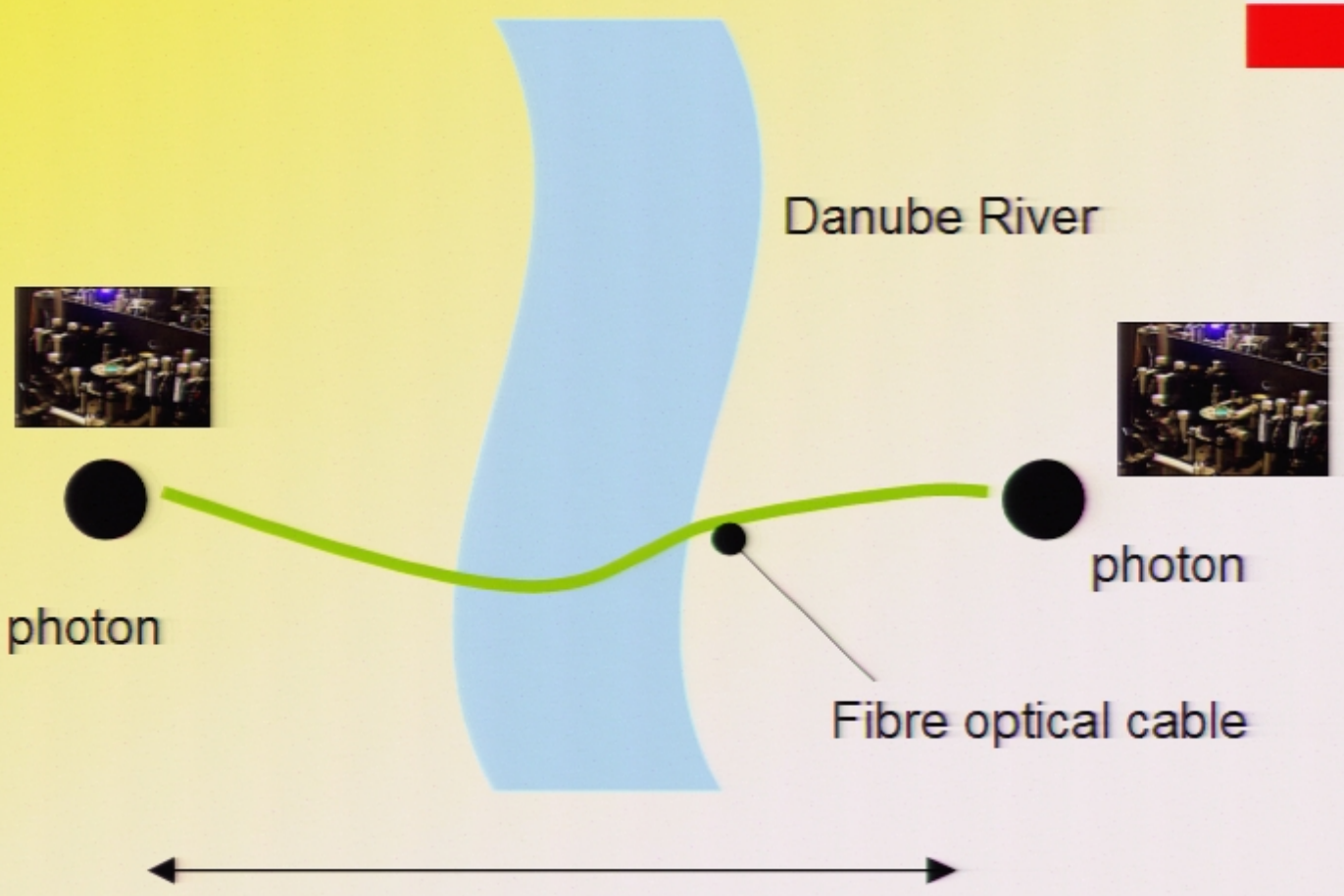
Picture of equipment used to perform an early teleportation experiment with individual particles of light (photons). (University of Vienna, Austria.)

1998 & 2002: Caltech, USA & Canberra, Australia: A laser beam (About 50 cms)



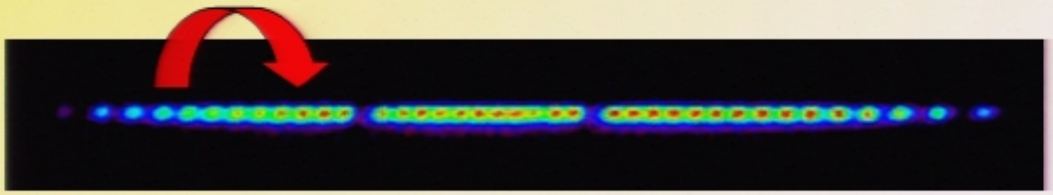
"Beam me up, mate" --- CNN

2004: Vienna, Austria
a single photon: 600 metres (world record)



For more information visit http://news.bbc.co.uk/2/hi/science/nature/3576594.stm

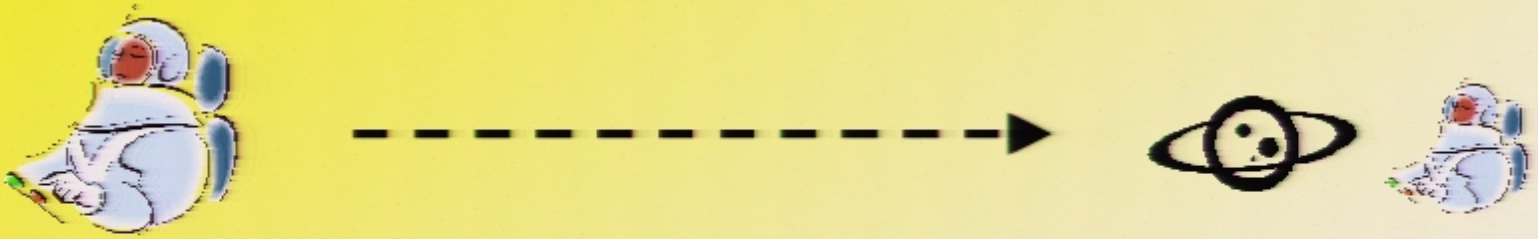
2004: Innsbruck, Austria & Boulder, Colarado, USA
teleporting atoms: c. 1 mm



What is teleportation?

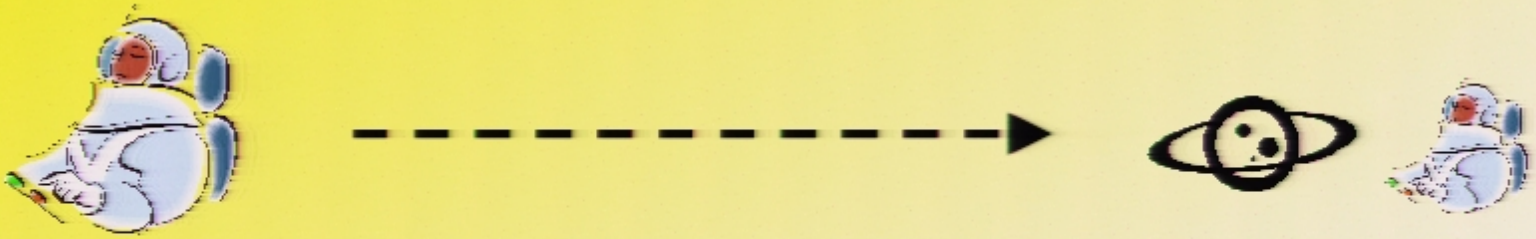
- Imagine a brave space explorer in her spaceship.

Science Fiction Recipe for Teleportation



- 1. A machine scans the space explorer to find out everything about her. Eg. her height, her mass, what shoes she is wearing, the colour of her eyes etc.
- 2. It then sends this information to an nearby uncharted planet.
- 3. On the planet's surface, a receiving machine takes in the information & uses it to construct a perfect copy of the astronaut.

Science Fiction Recipe for Teleportation



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