

Dalla Transilvania a Frascati fra particelle
e gatti quantistici
Catalina Curceanu, LNF-INFN

International Day of Women and Girls in Science 2019
Frascati, 11 febbraio 2019











Political Map of Europe

YourEuropeMap.com
is sponsored by
pocket-talk.org
Your Free Travel Dictionaries!























COLLEGIUL NAȚIONAL
MIHAI VITEAZUL

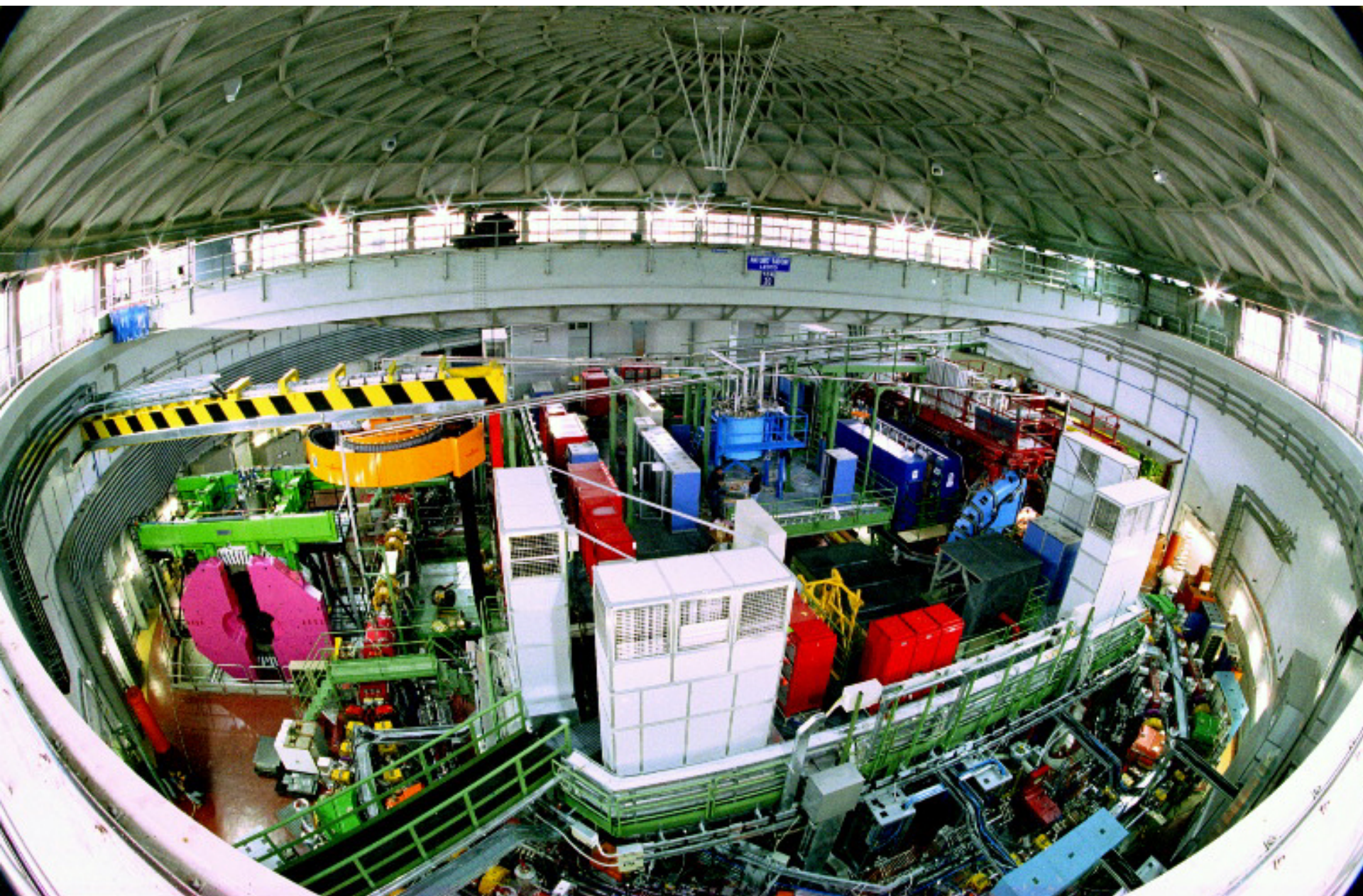
Ho scelto di studiare scienza (fisica)
perche' ero curiosa

Come funziona l'Universo?
Di cosa e' fatto?

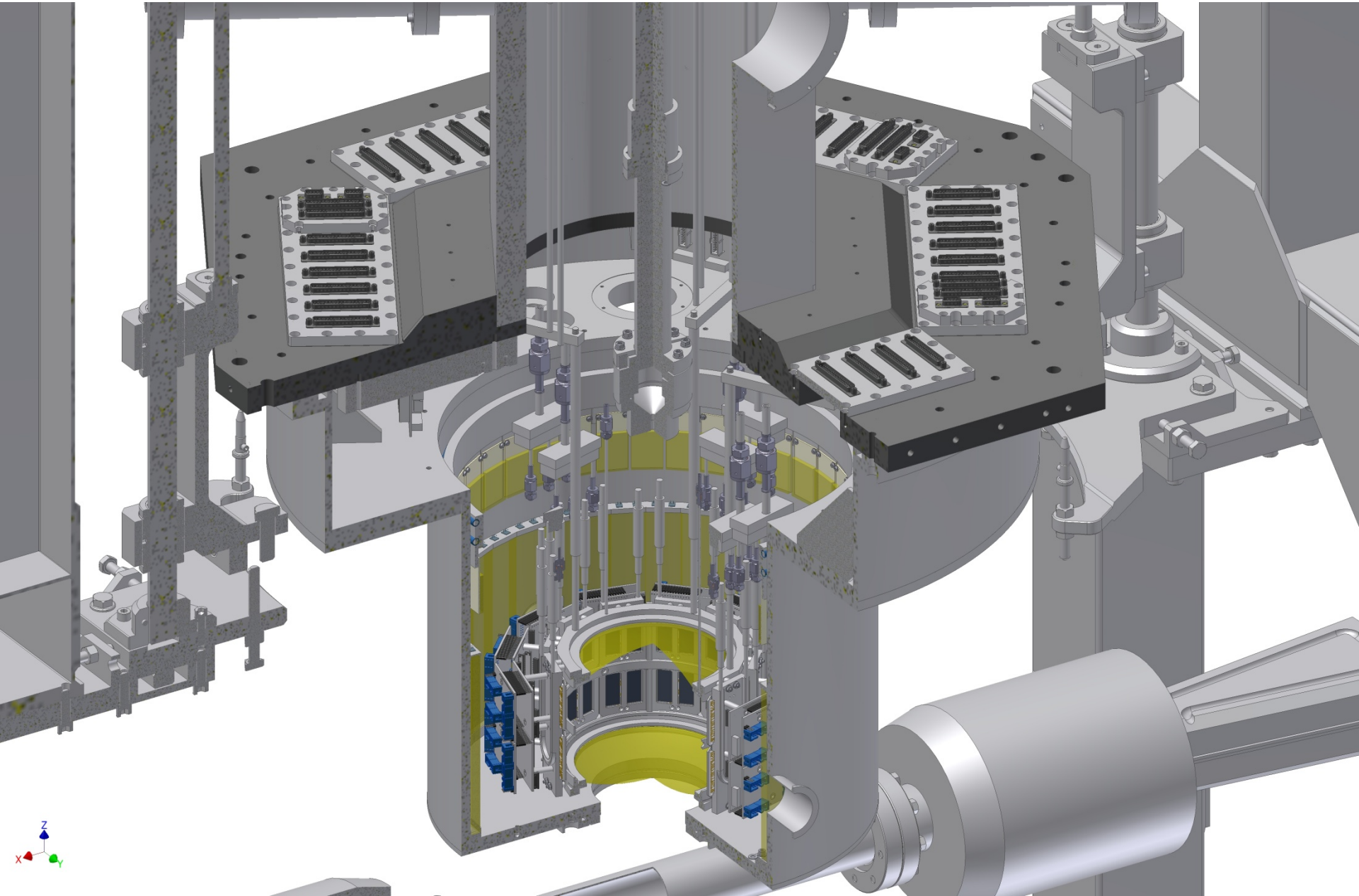
Esistono gli extraterrestri?





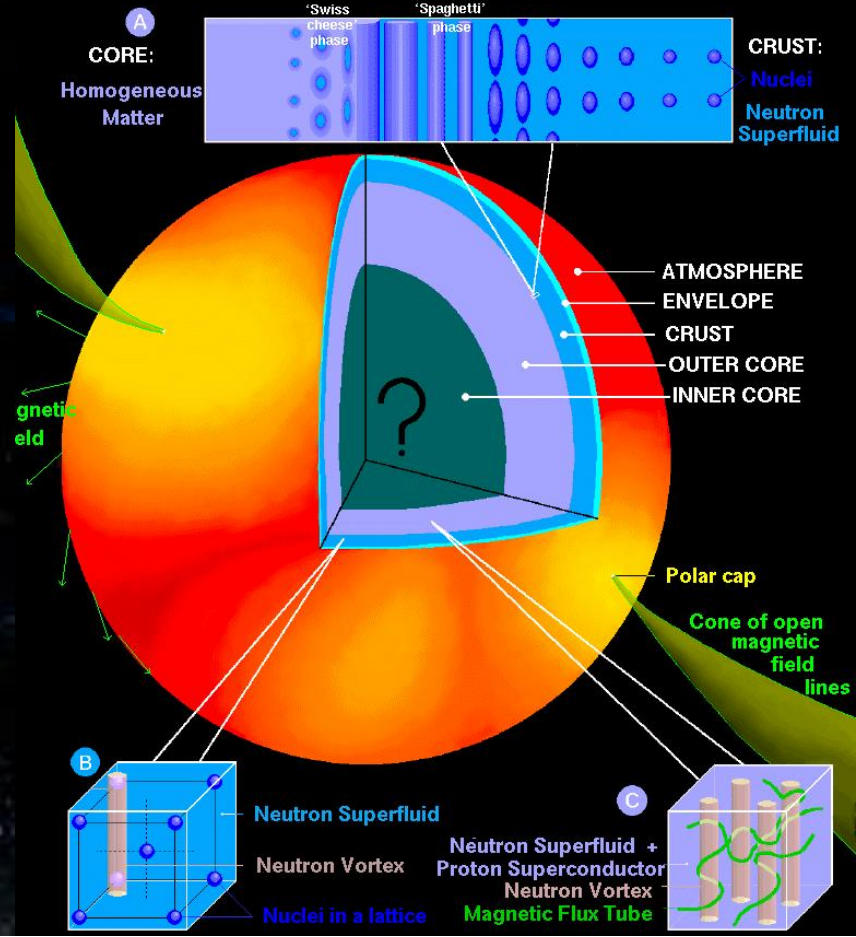


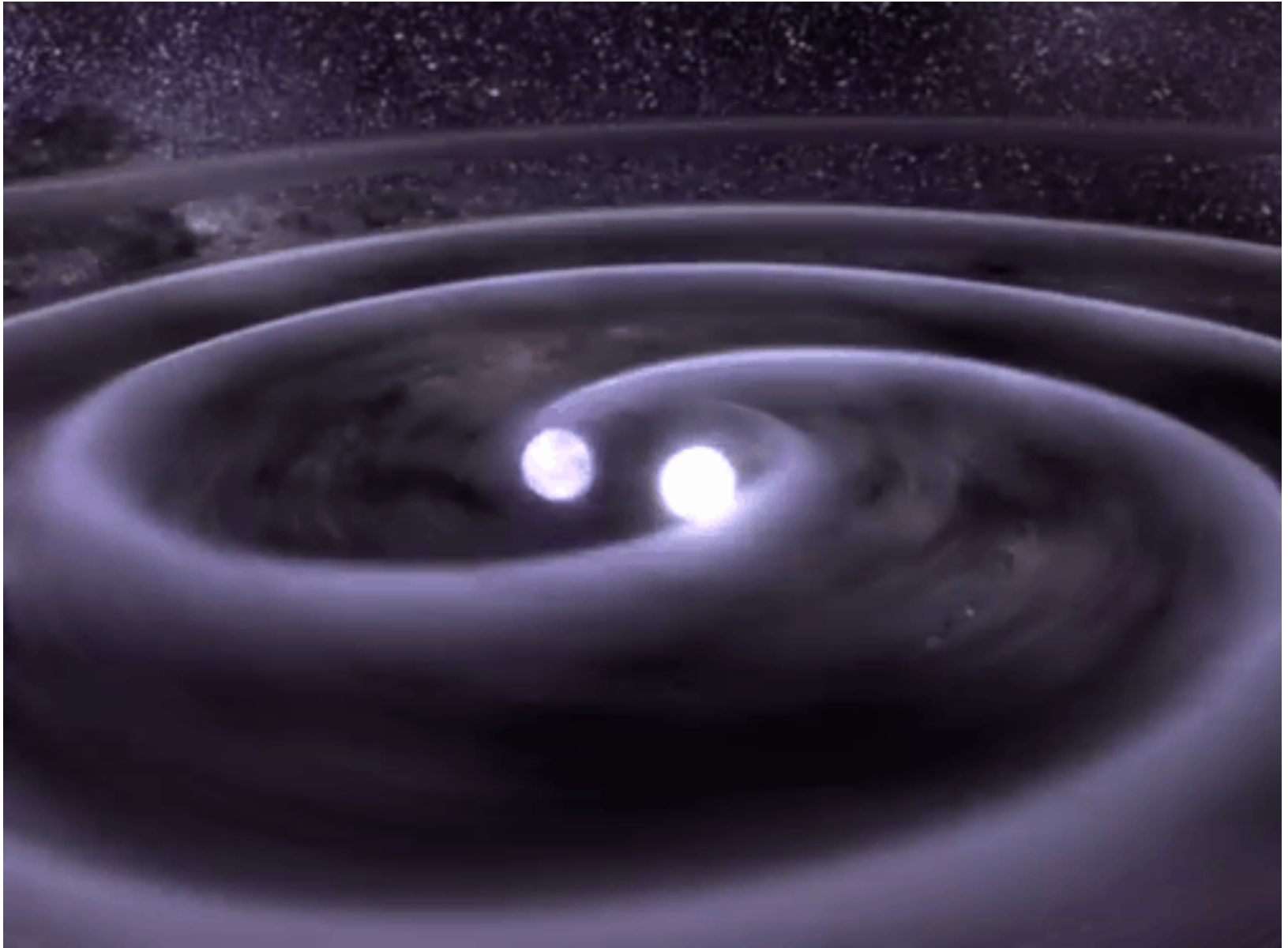
SIDDHARTA-2 setup





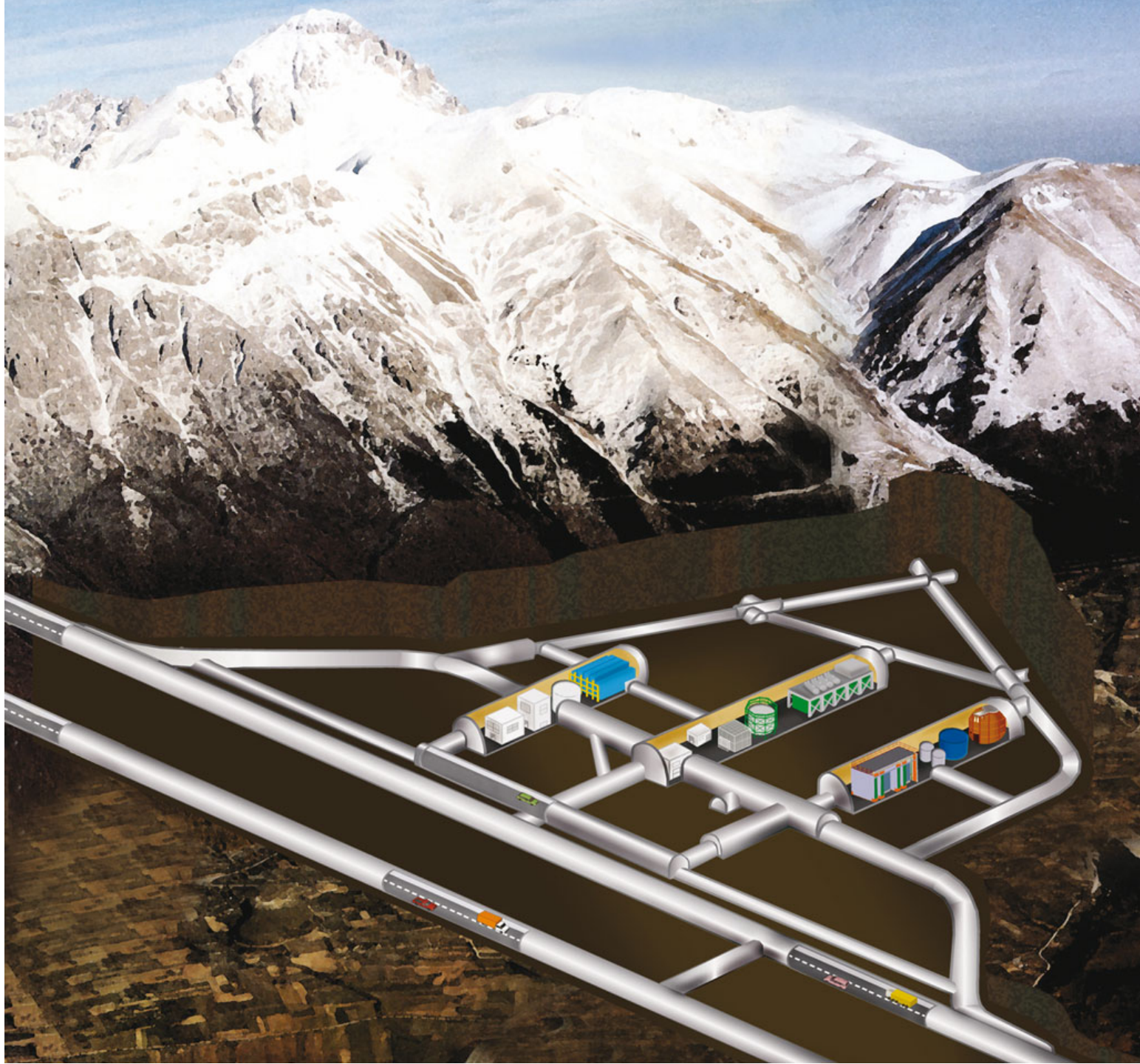
A NEUTRON STAR: SURFACE and INTERIOR













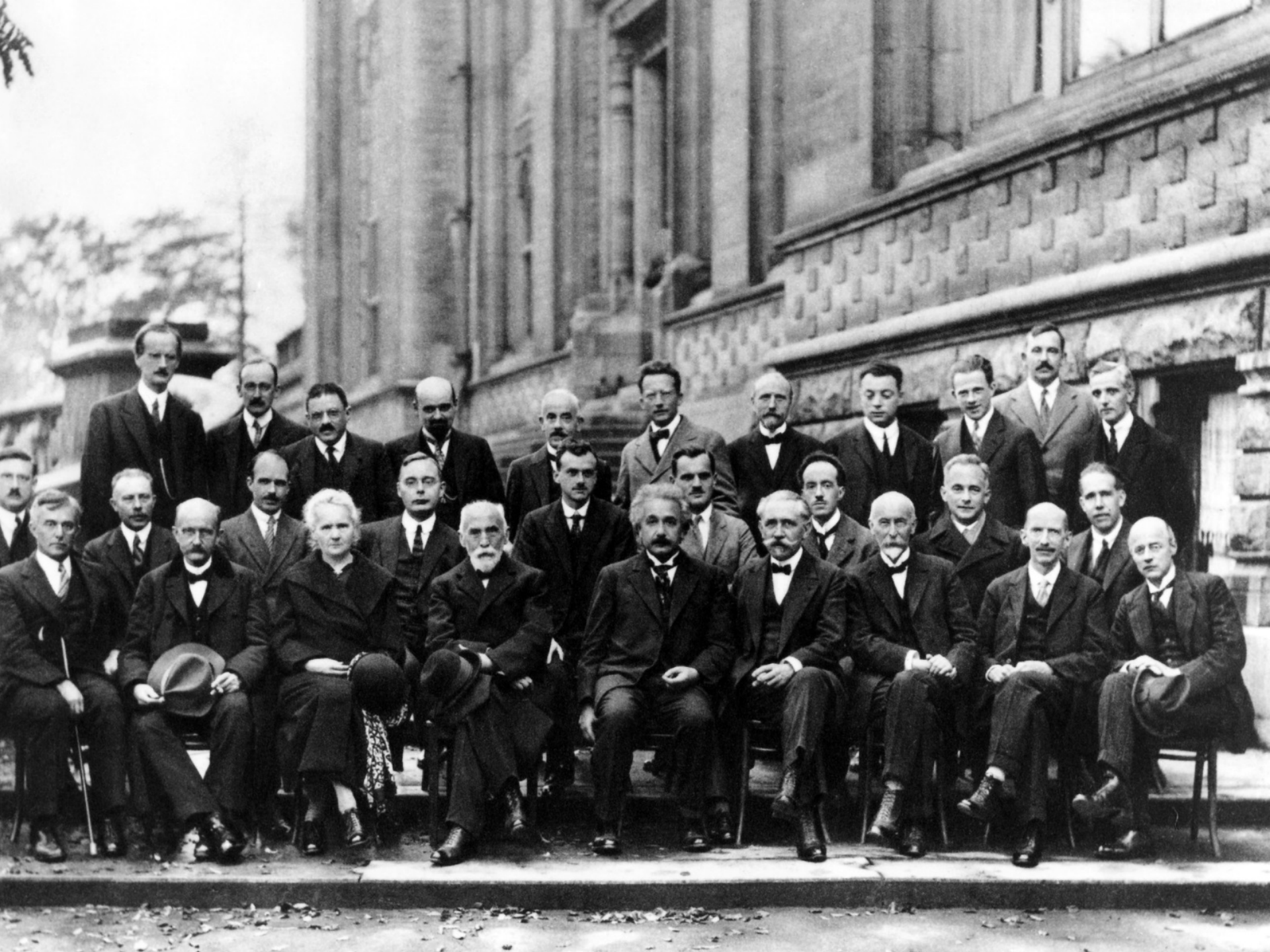


Cats: Schroedinger cat and Quantum mechanics



From the wonderful world
of quantum mechanics where







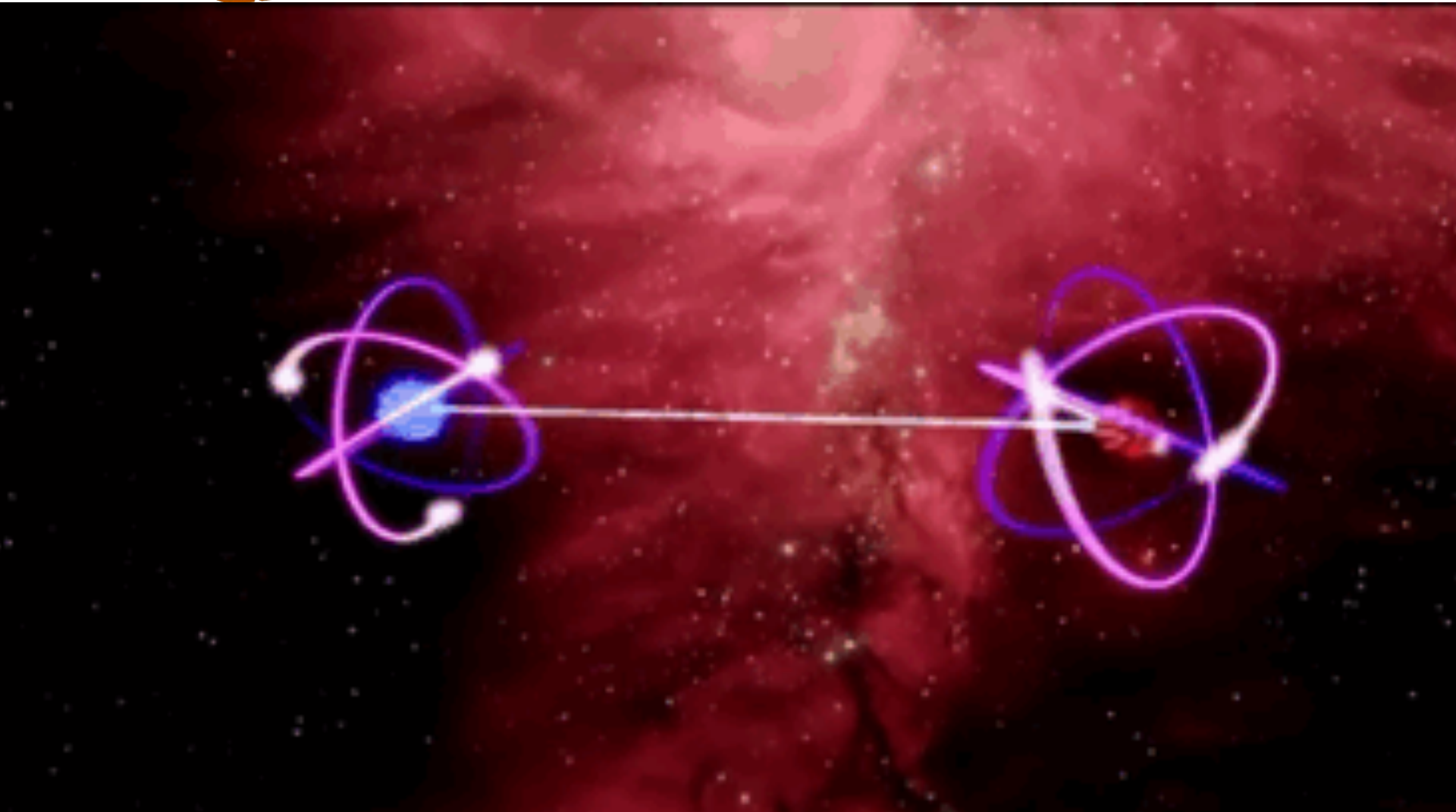
$$|\Psi\rangle = \frac{|\text{alive}\rangle + |\text{dead}\rangle}{\sqrt{2}}$$



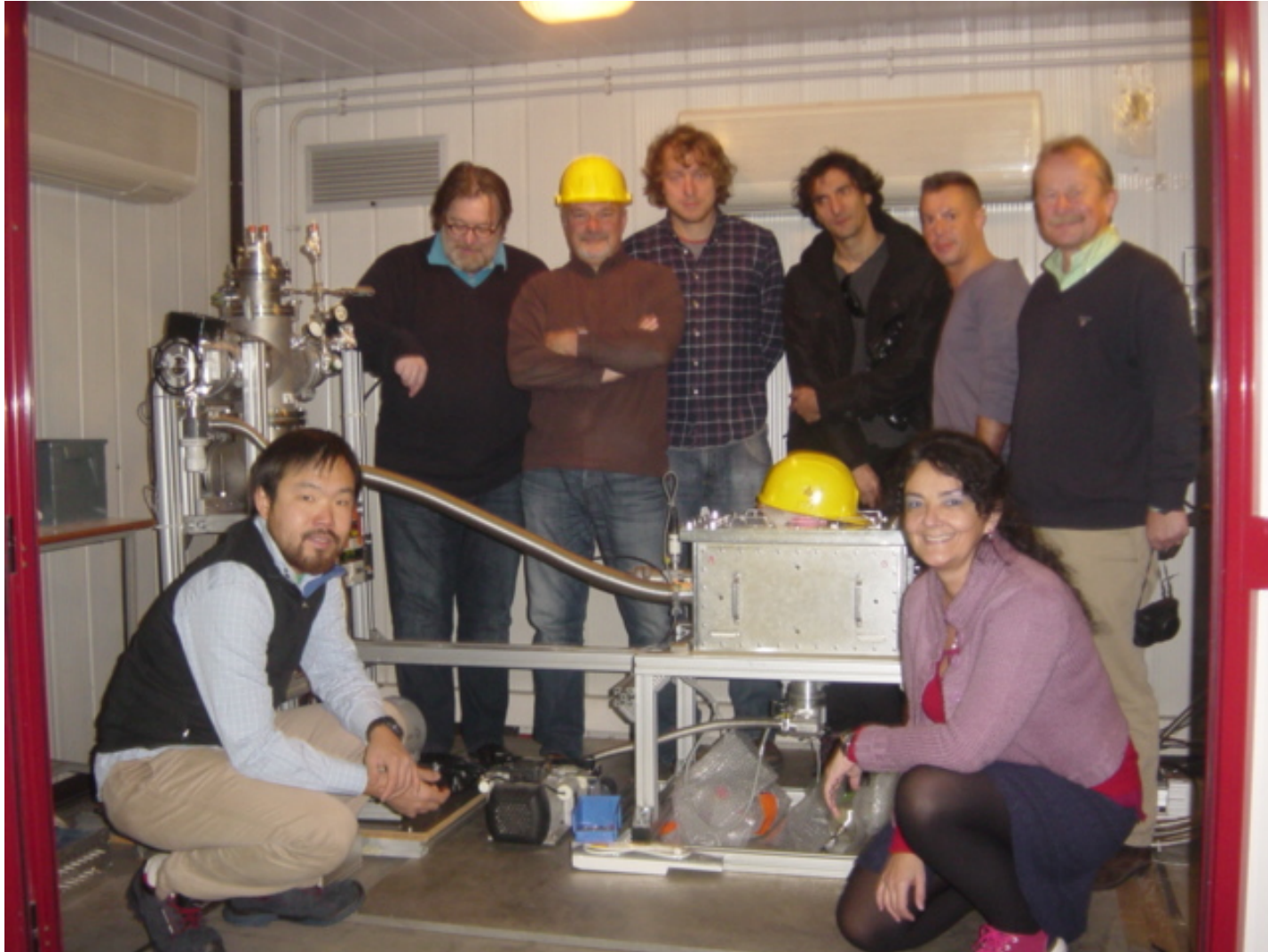
RESULTS
 DEAD
 ALIVE
 ~~BOTH~~

SCHRÖDINGERS CAT
Experiment #001

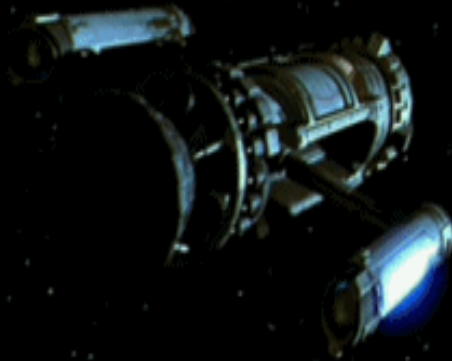
L'entanglement Risorsa quantistica



Underground Gran Sasso laboratory



Quantum Computers




Potentiate current technologies:

More realistic virtual reality

Improved artificial intelligence



A scientist in a white lab coat and blue gloves is using a pipette to transfer liquid into a multi-well plate. The background is a blurred laboratory setting with various glassware and equipment. The text is overlaid on the left side of the image.

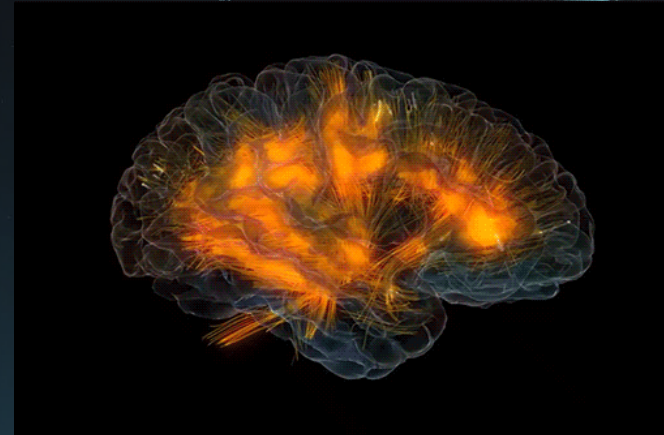
**Breakthrough in
science:
personalized
medicine,
new cancer cure**

A server room with rows of server racks under blue lighting. The racks are filled with server units, and the perspective is looking down a long aisle. The text is overlaid on the left side of the image.

Big Data Analysis: Fight Cyberterrorism, Climate Change Forecasts

Understand The
Brain:

Cure for mental
illnesses
(dementia,
schizophrenia)

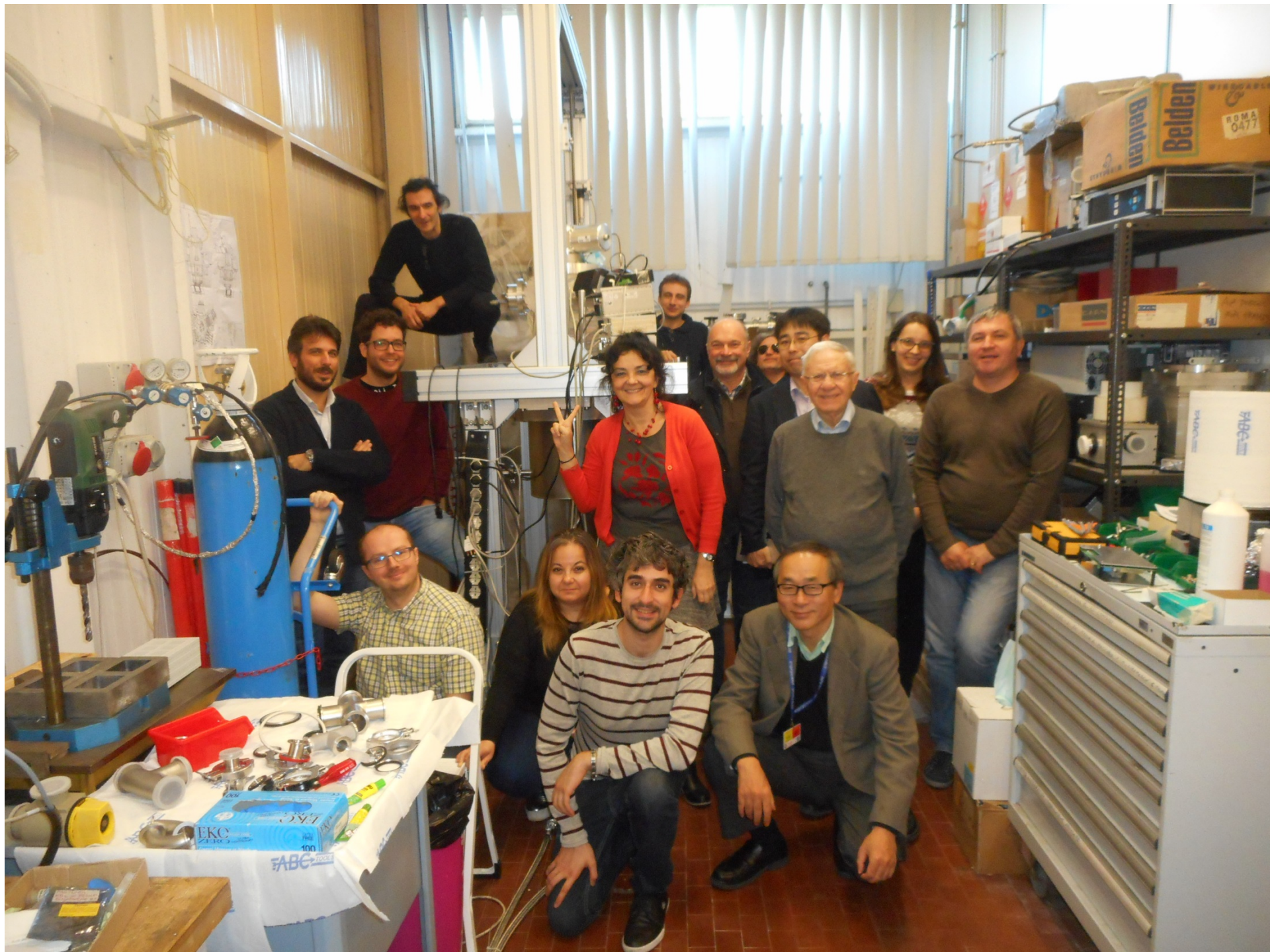


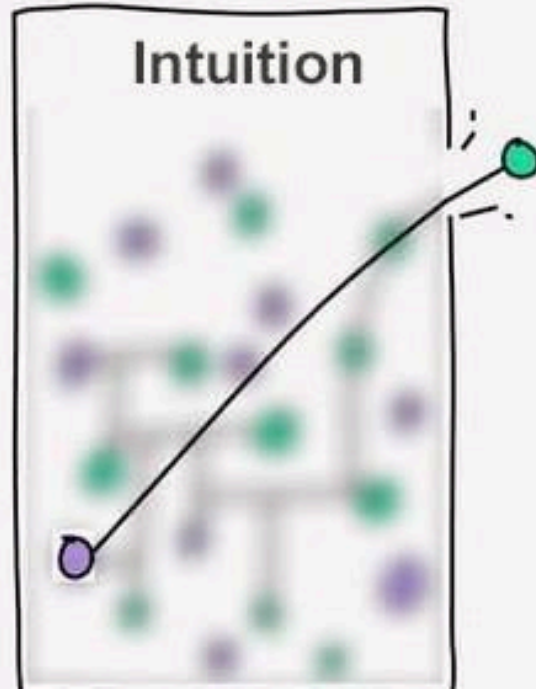
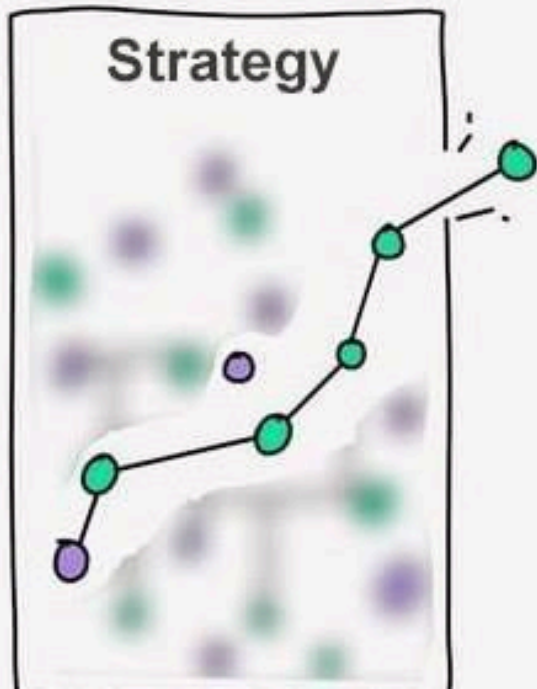
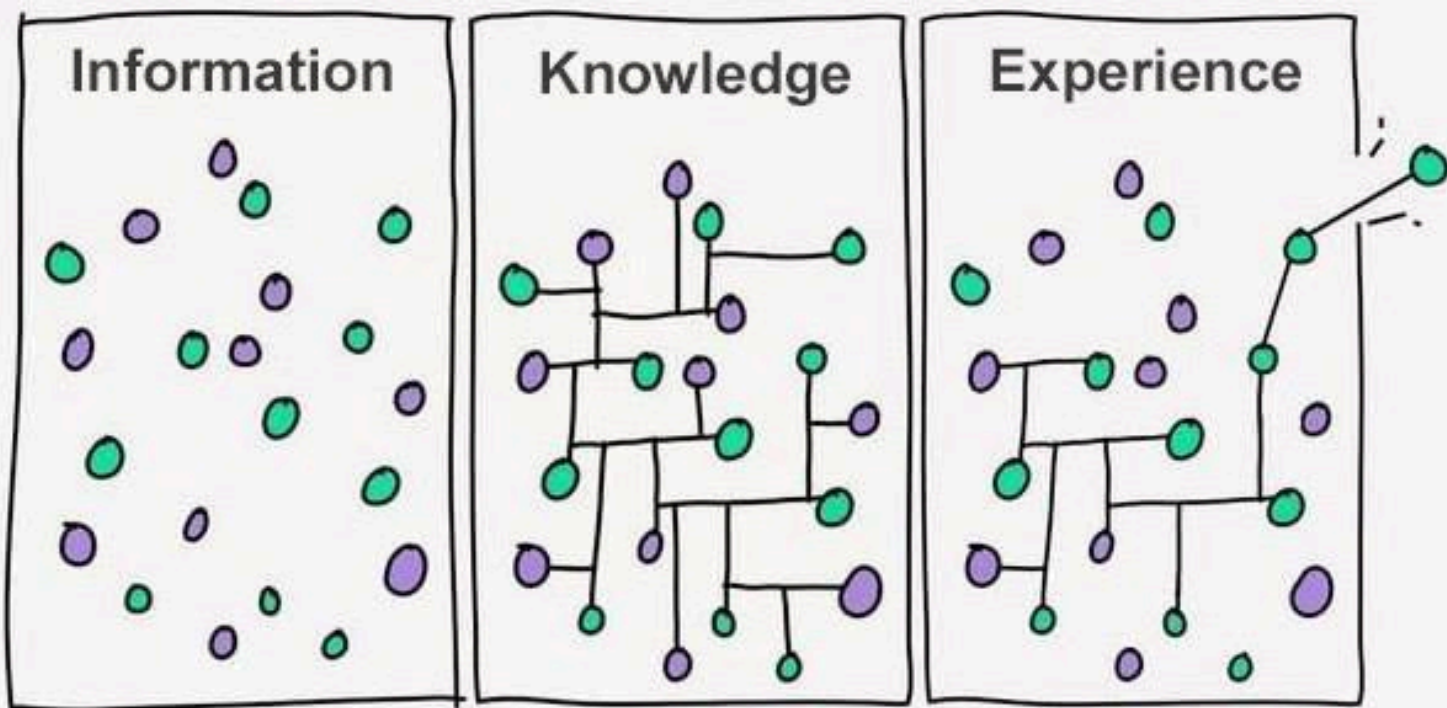


**L Scienze e 'un' avventura
E' divertente
E' utile
Ci sono ancora tantissime cose da scoprire
E problemi da risolvere!**

la fisica mette unisce







Acknowledgements



Farnesina
Ministero degli Affari Esteri
e della Cooperazione Internazionale

cost
EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

INFN
LNF
Istituto Nazionale di Fisica Nucleare



John
Templeton
Foundation

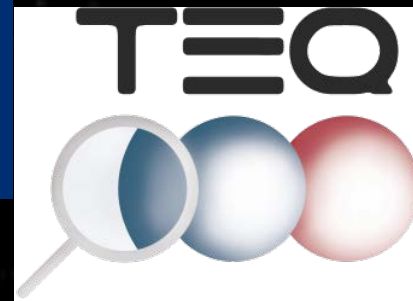
**CENTRO
FERMI**

Enrico Fermi

MUSEO
STORICO DELLA FISICA
E
CENTRO
STUDI E RICERCHE
ENRICO FERMI

FQXi

FOUNDATIONAL QUESTIONS INSTITUTE



Catalina.curceanu@Lnf.INFN.IT

Facebook:
Catalina Curceanu