

Más allá de la luz: La Física de Astropartículas

Carlos Pobes – CPAN/U.Zaragoza

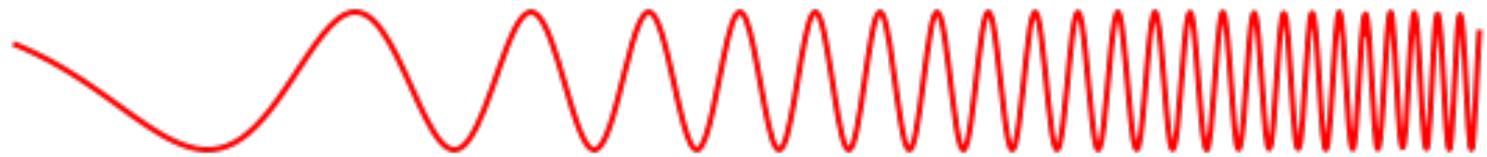
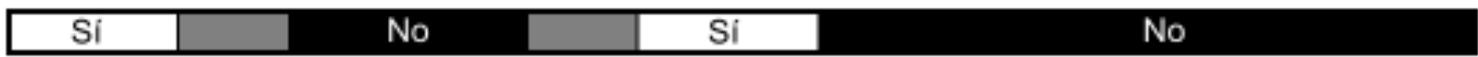
Salamanca, sábado 13-Nov-2010



Proyecto: "Semana Española de las Astropartículas 2010"



¿Penetra la atmósfera terrestre?



Tipo de radiación
Longitud de onda (m)

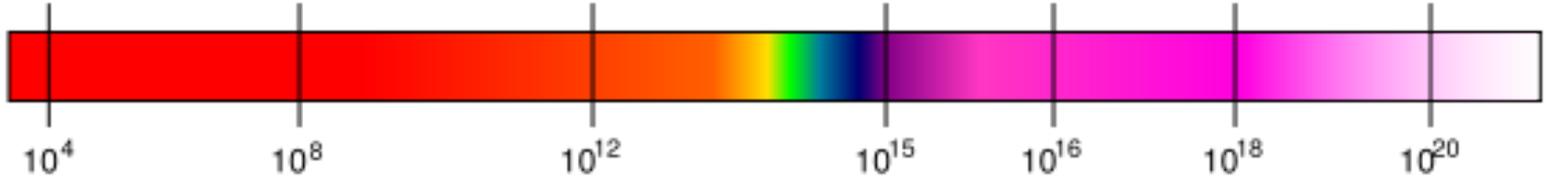
Radio 10^3	Microondas 10^{-2}	Infrarrojo 10^{-5}	Visible 0.5×10^{-6}	Ultravioleta 10^{-8}	Rayos X 10^{-10}	Rayos gamma 10^{-12}
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Escala aproximada de la longitud de onda

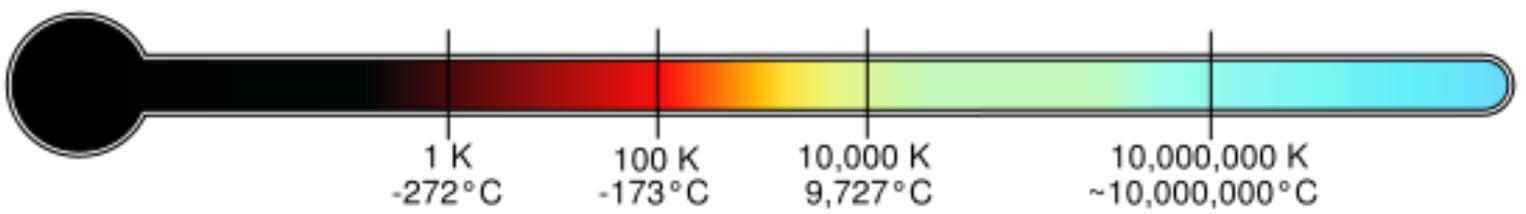


Edificios	Humanos	Mariposas	Punta de aguja	Protozoos	Moléculas	Átomos	Núcleo atómico
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Frecuencia (Hz)



Temperatura de los objetos en los cuales la radiación con esta longitud de onda es la más intensa







Nivel del mar

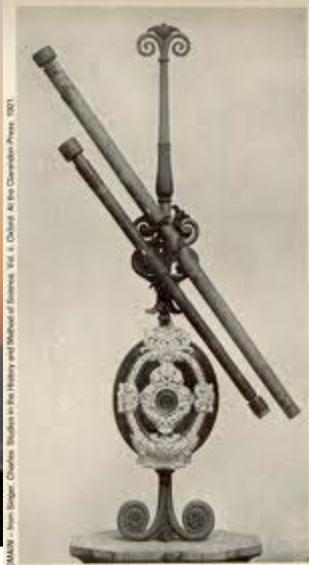
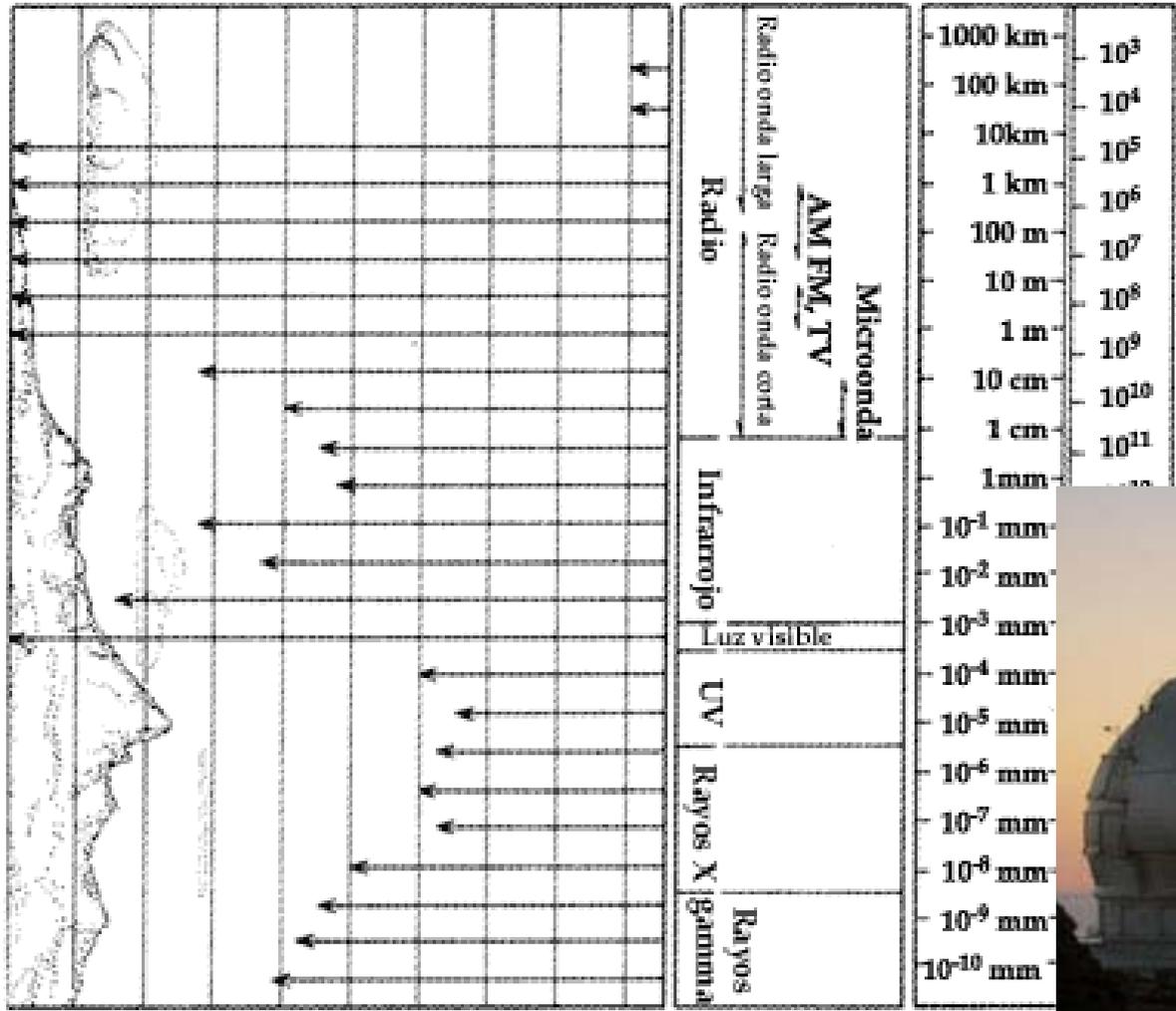
Altura (km)

3 6 12 25 50 100 200 400

Tipo de radiación

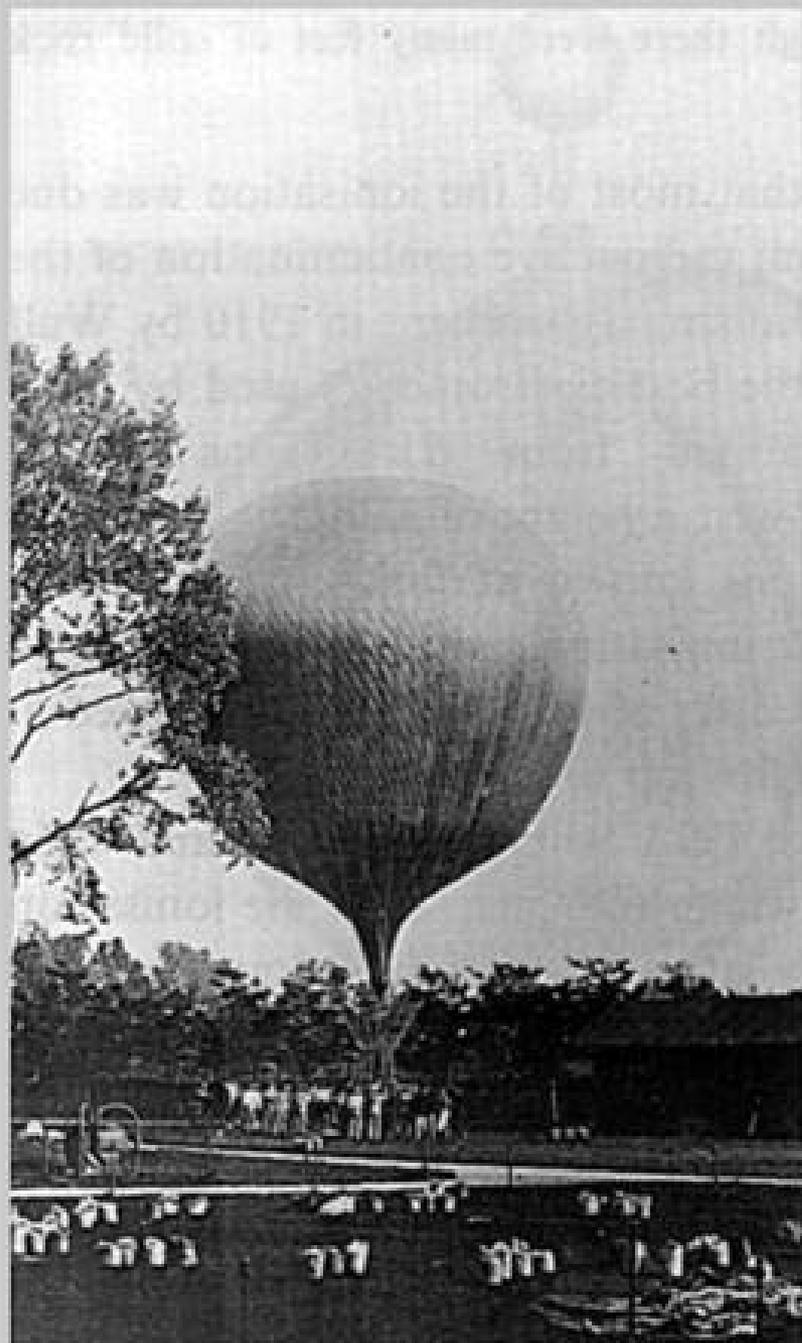
Longitud de onda

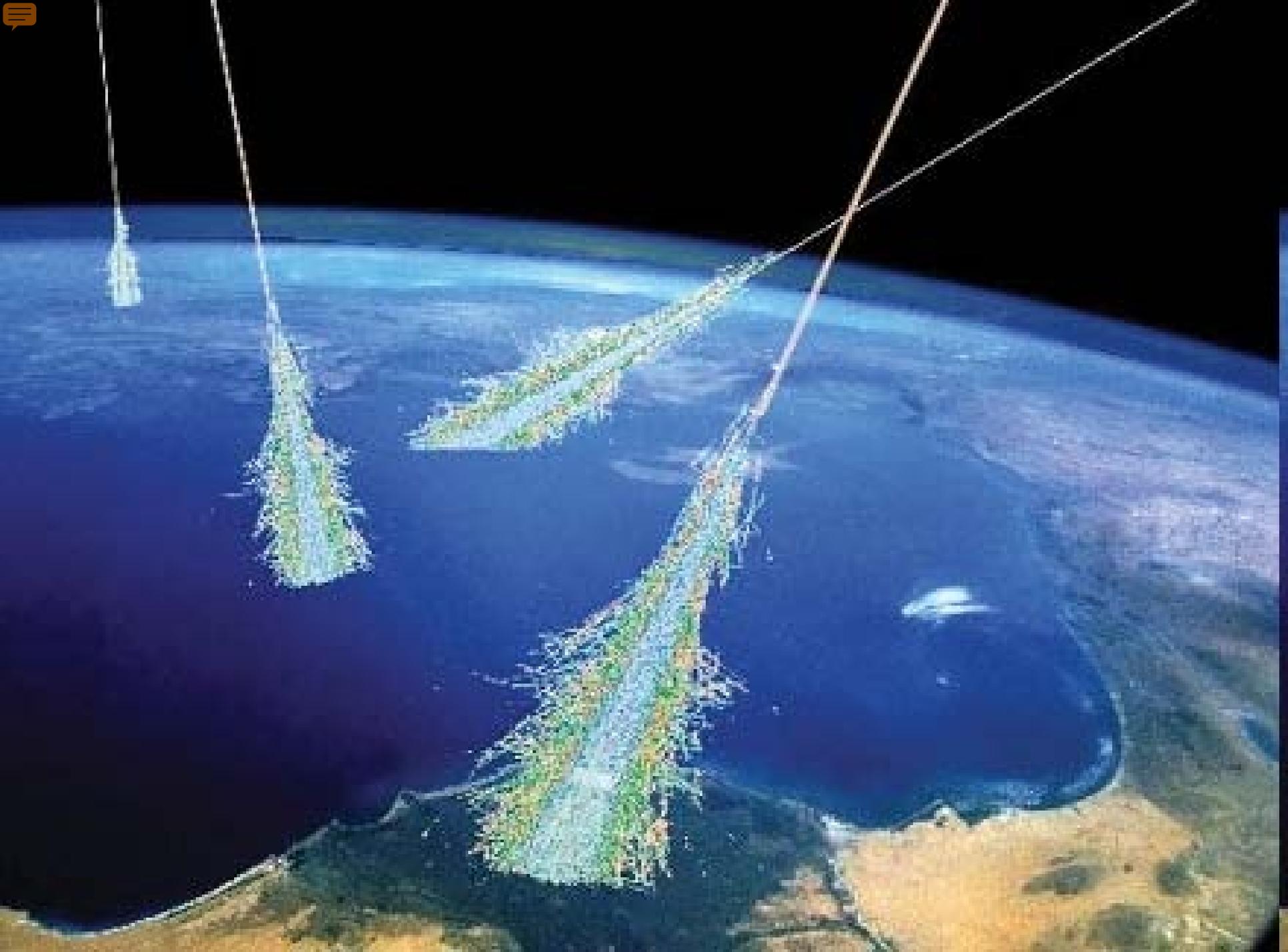
Frec. (Hz)



PUBLIC DOMAIN - from Sanger, Charles. Studies in the History and Method of Science, Vol. 2. Dordrecht: Reidel, 1957.

Galileo's Telescopes
The cracked lens is mounted in centre.





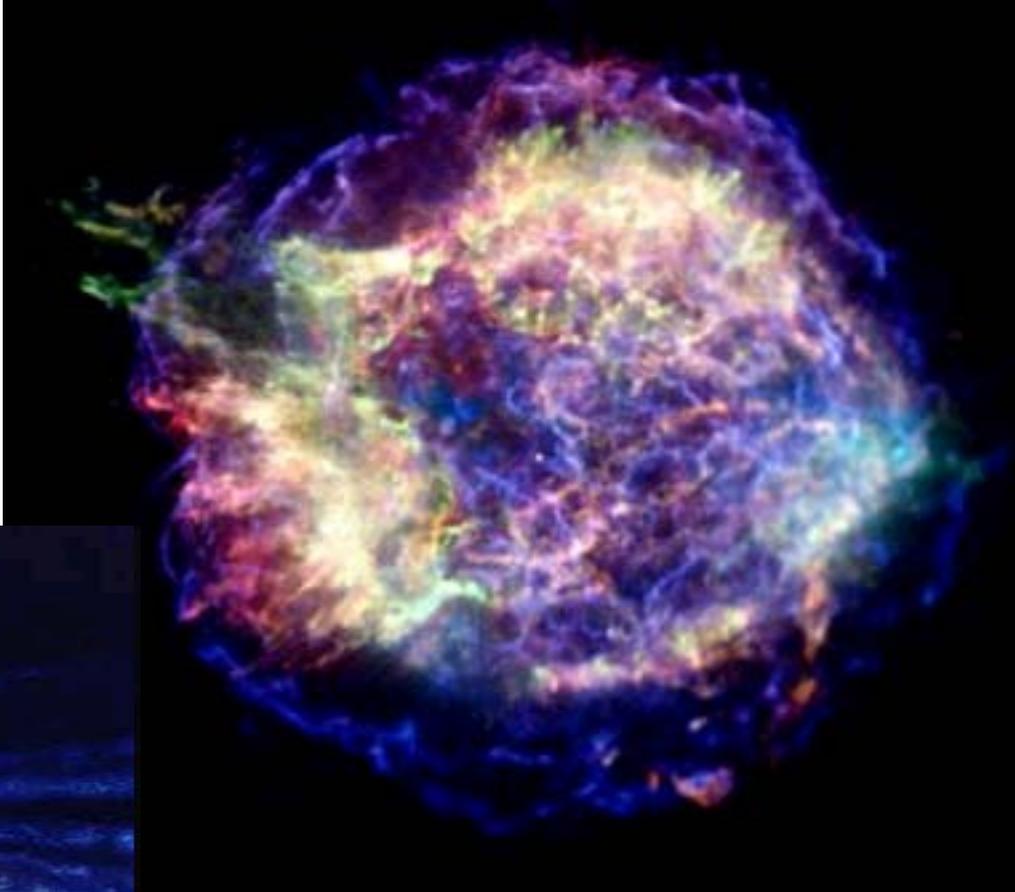




**Roque de los
Muchachos**

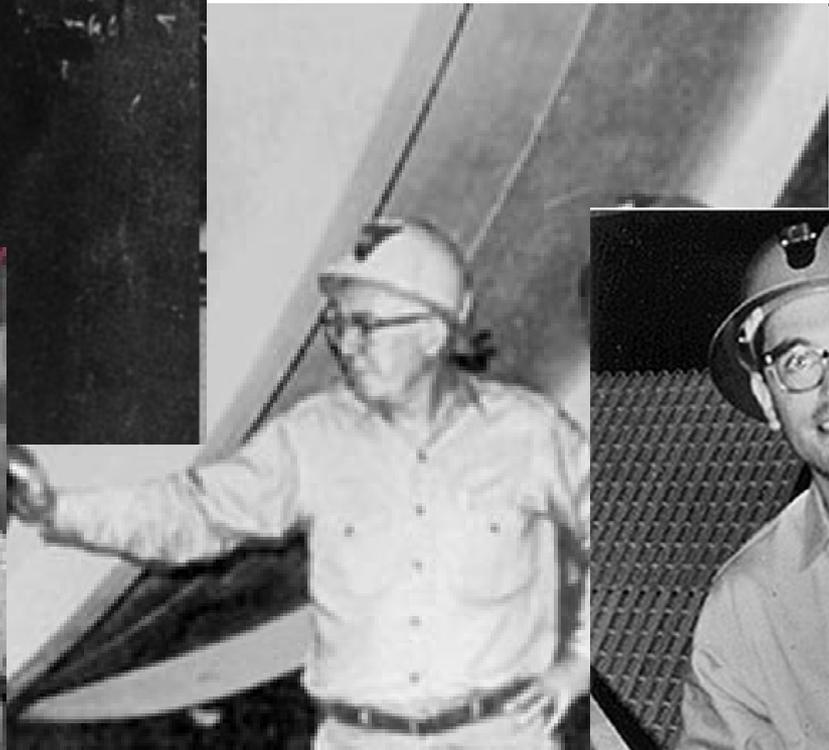
MAGIC

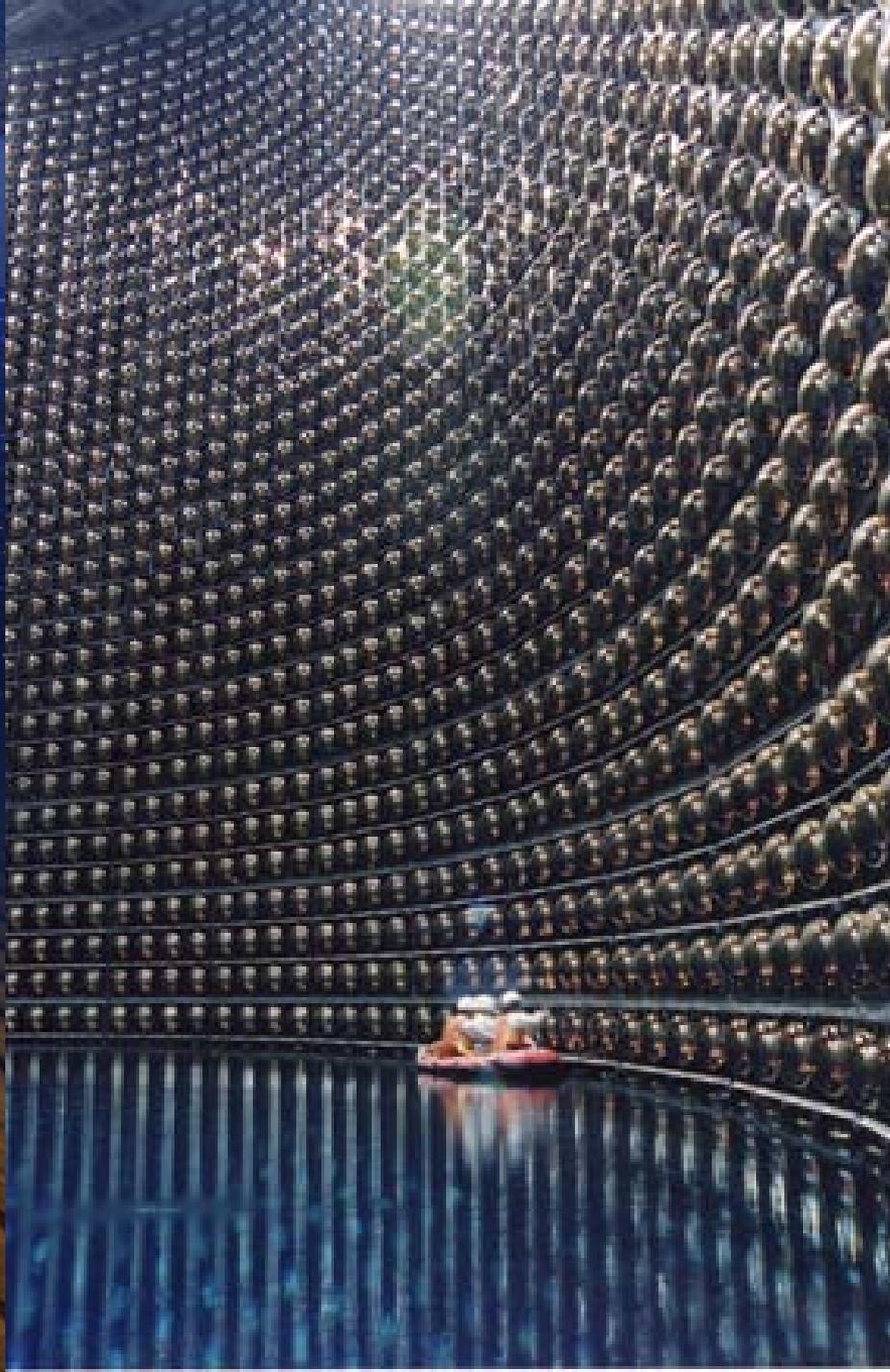
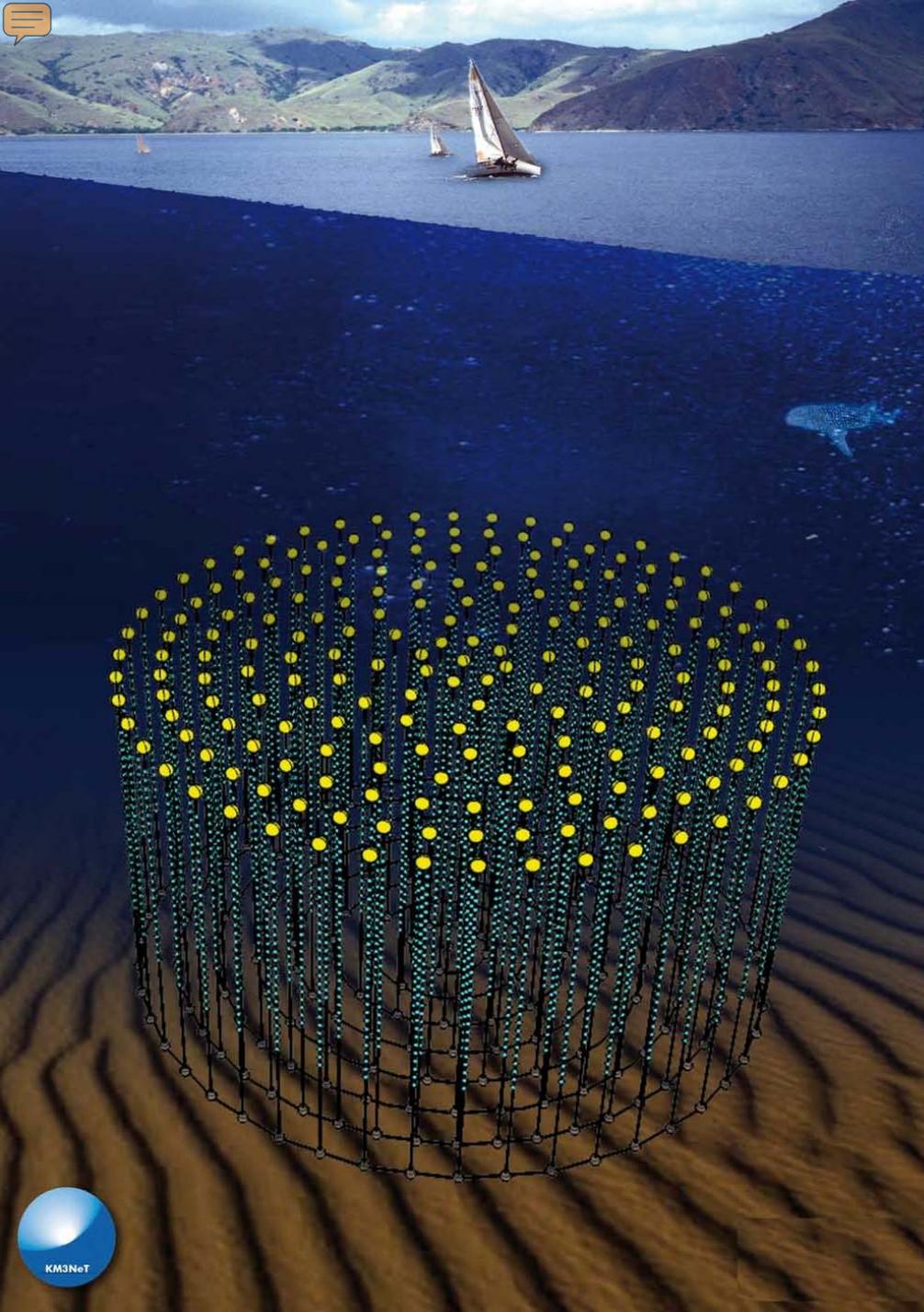


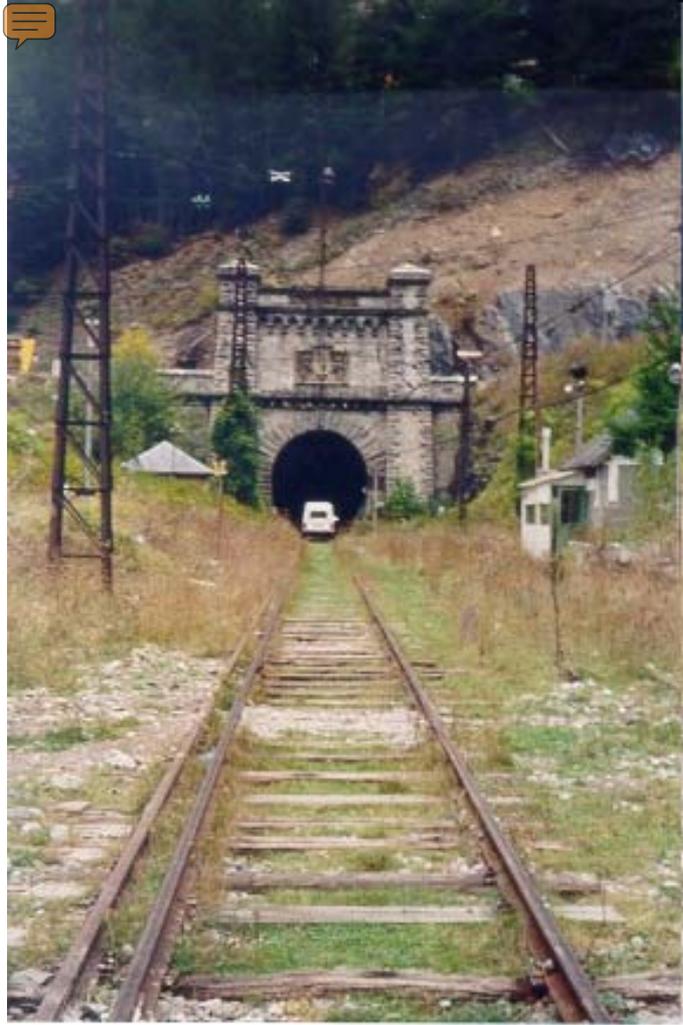




NEUTRINO



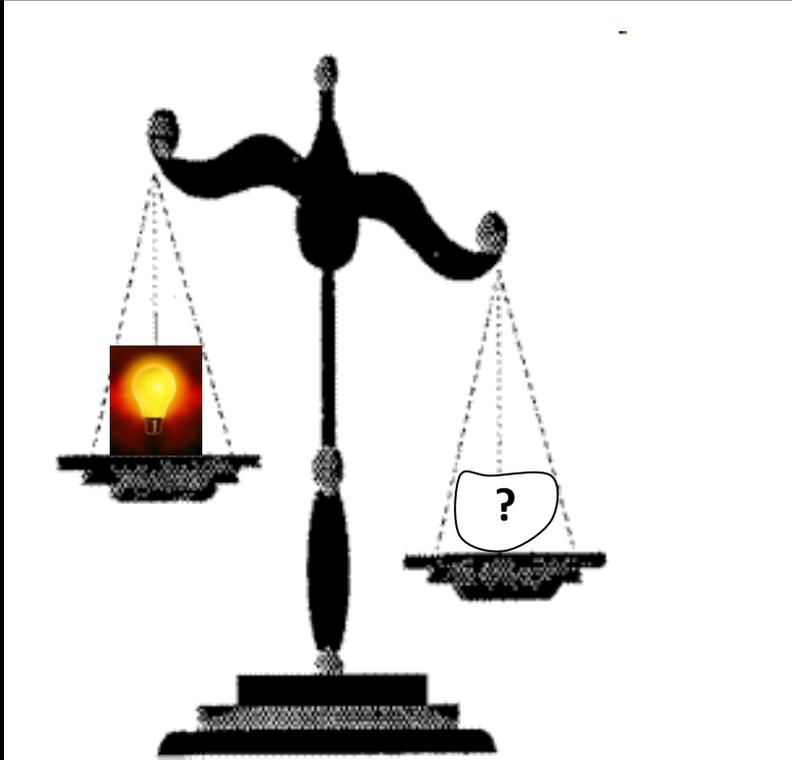
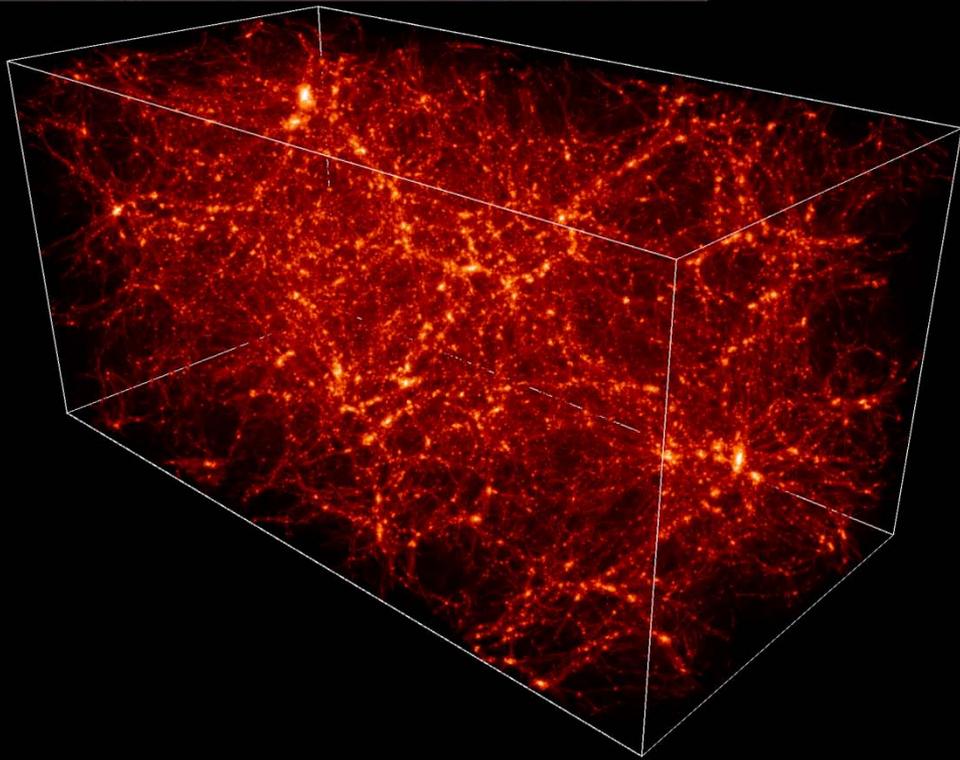
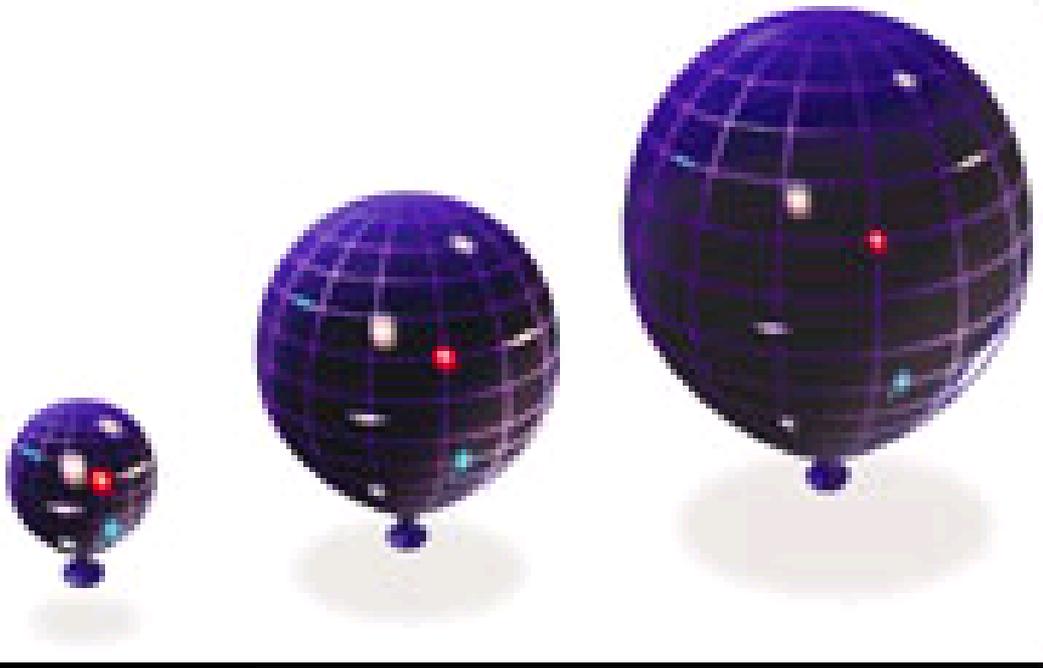




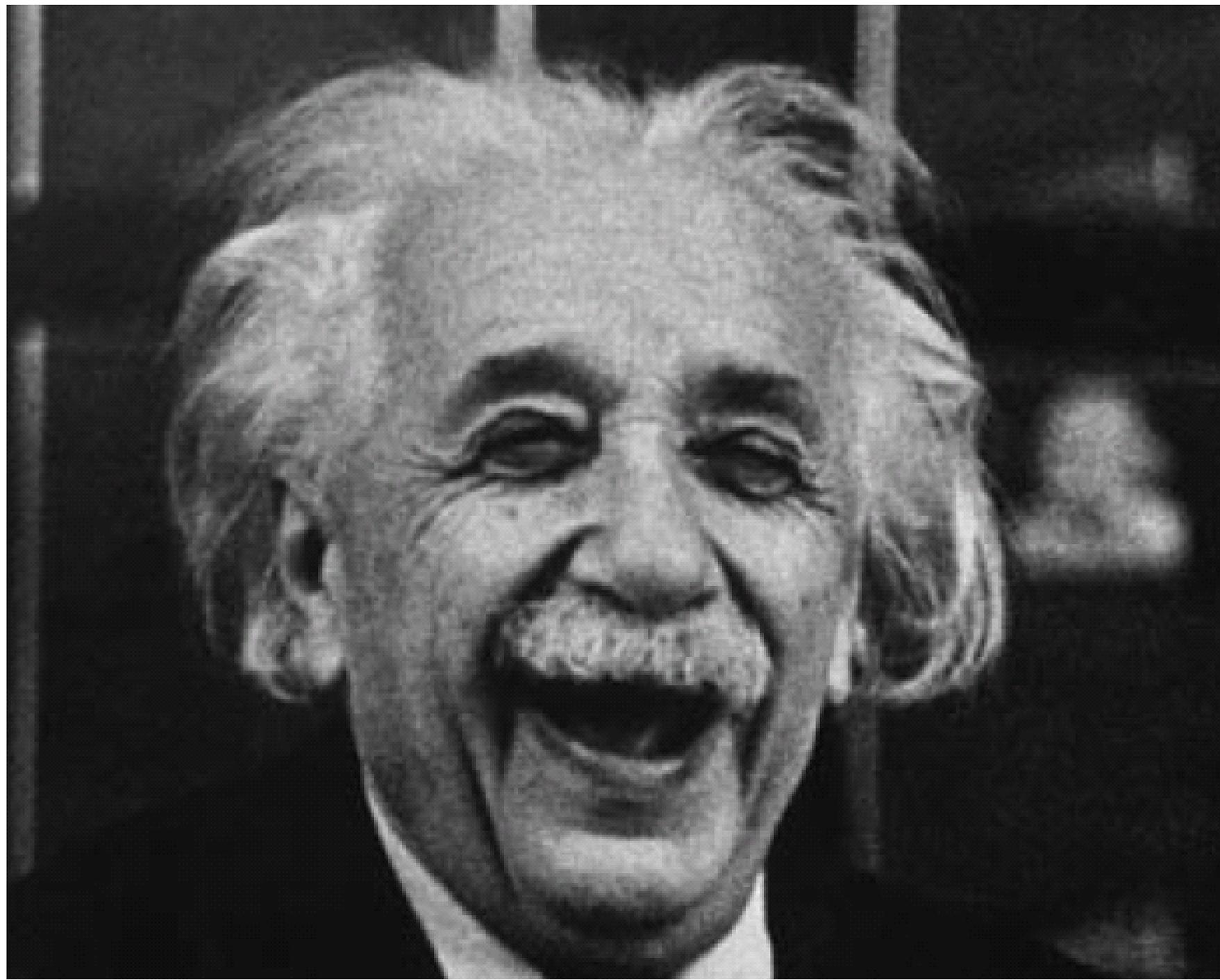
Laboratorio Subterráneo de
CANFRANC

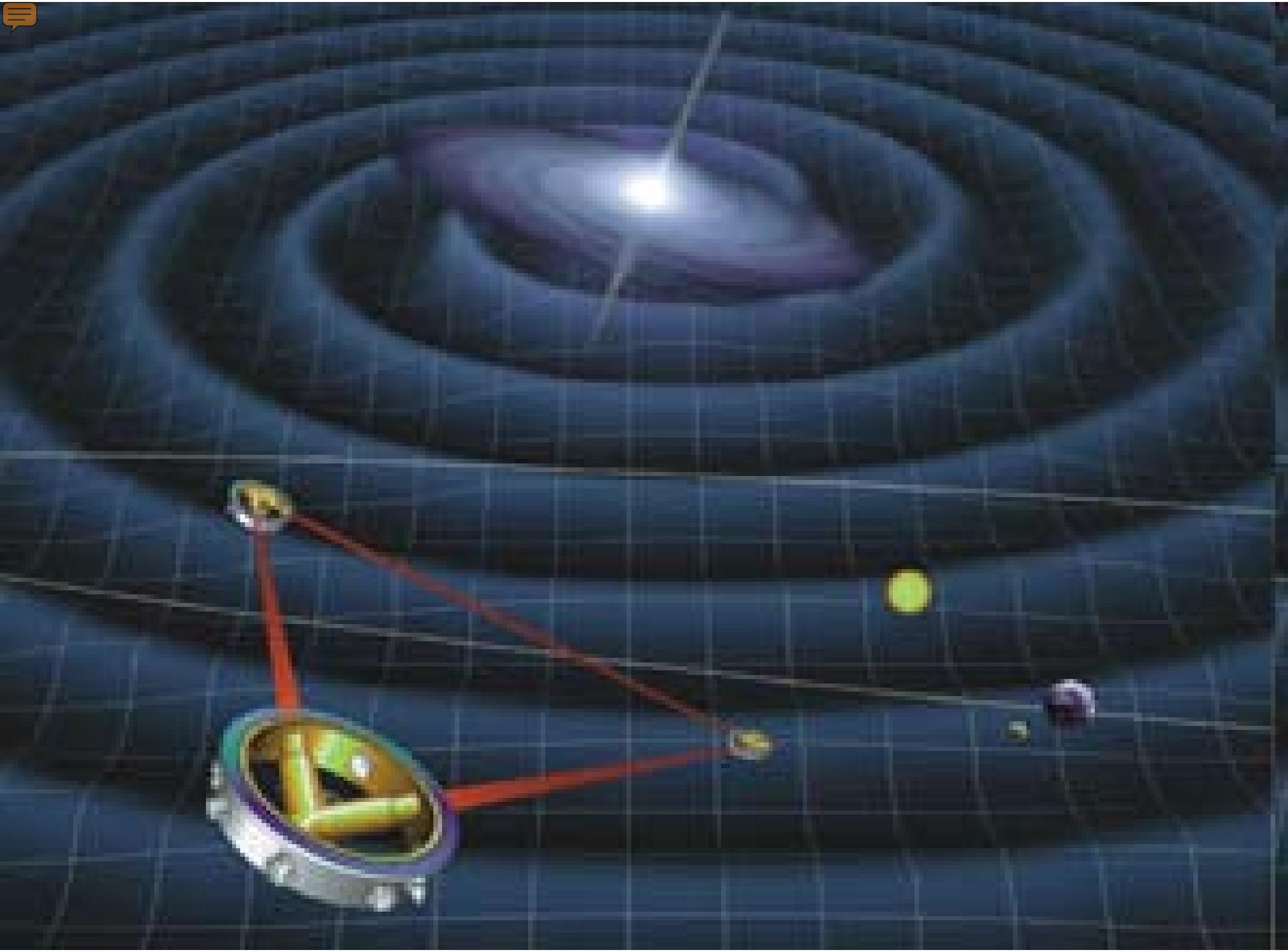


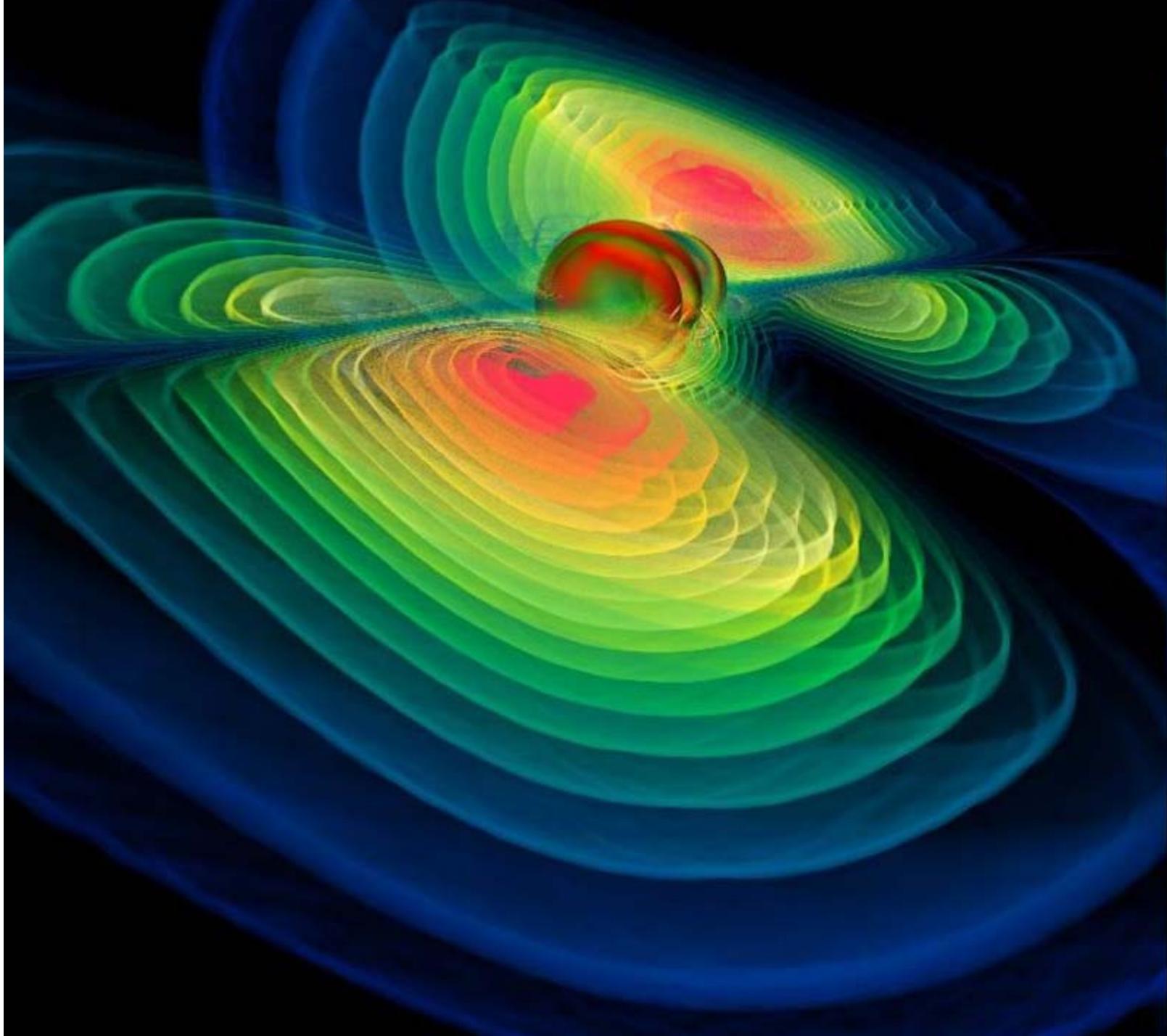
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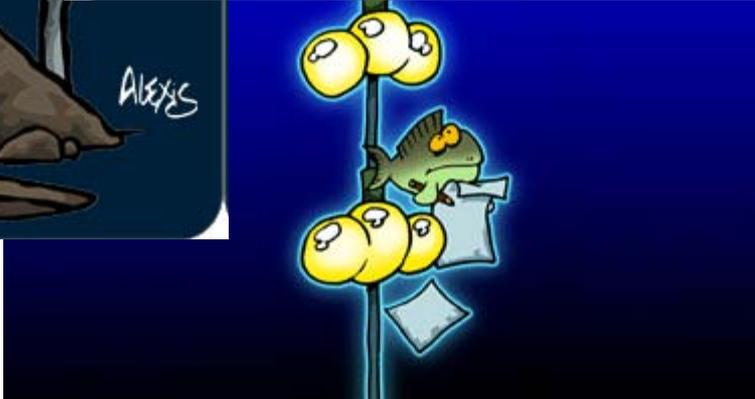


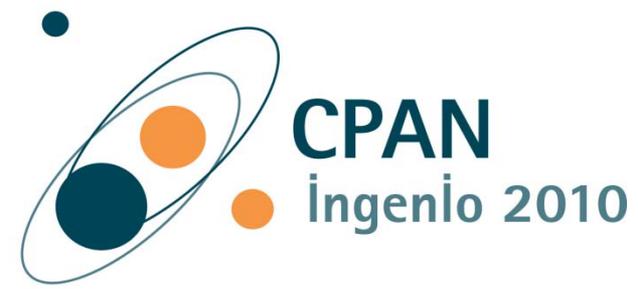












CURIOSIDAD

GRACIAS !!!

