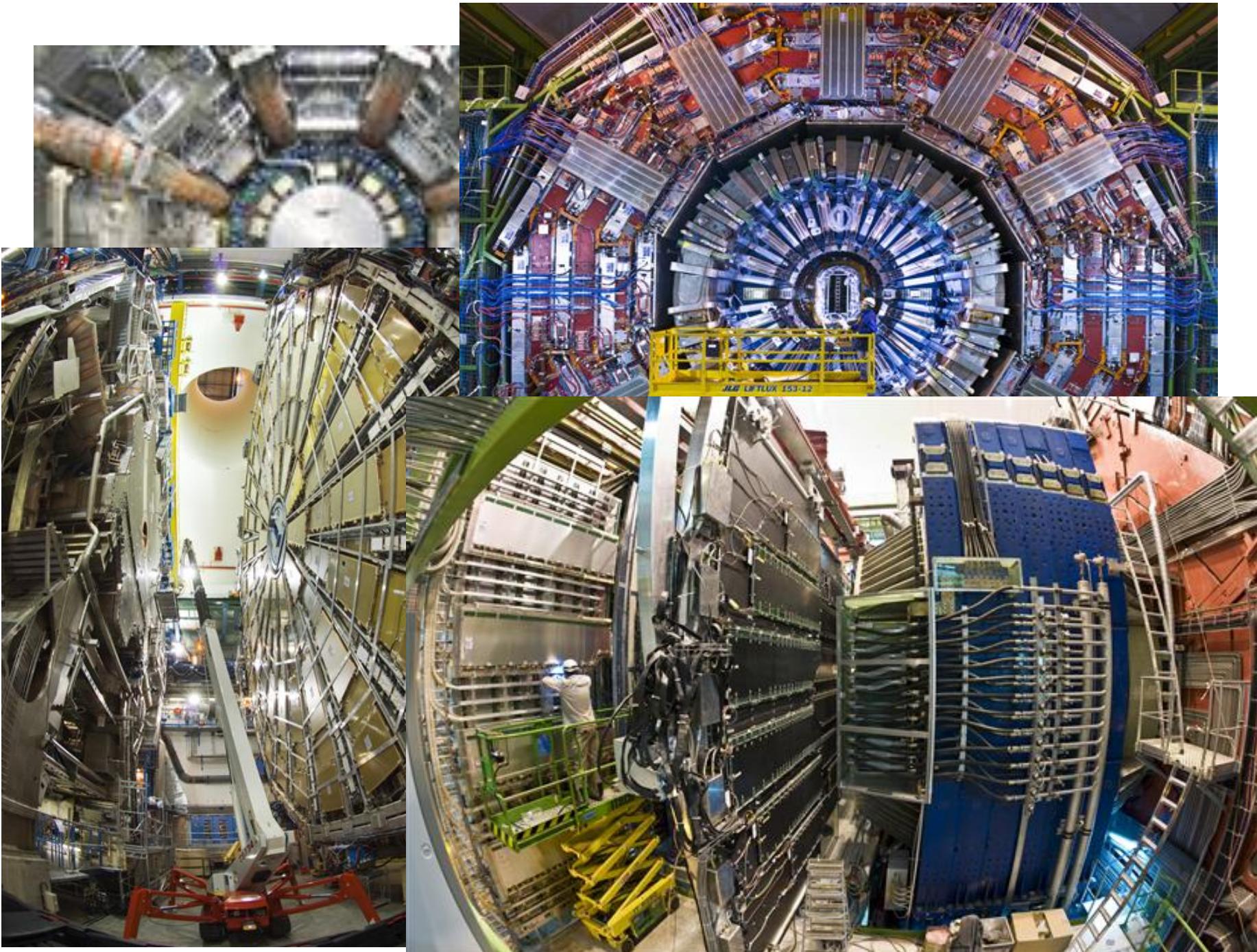


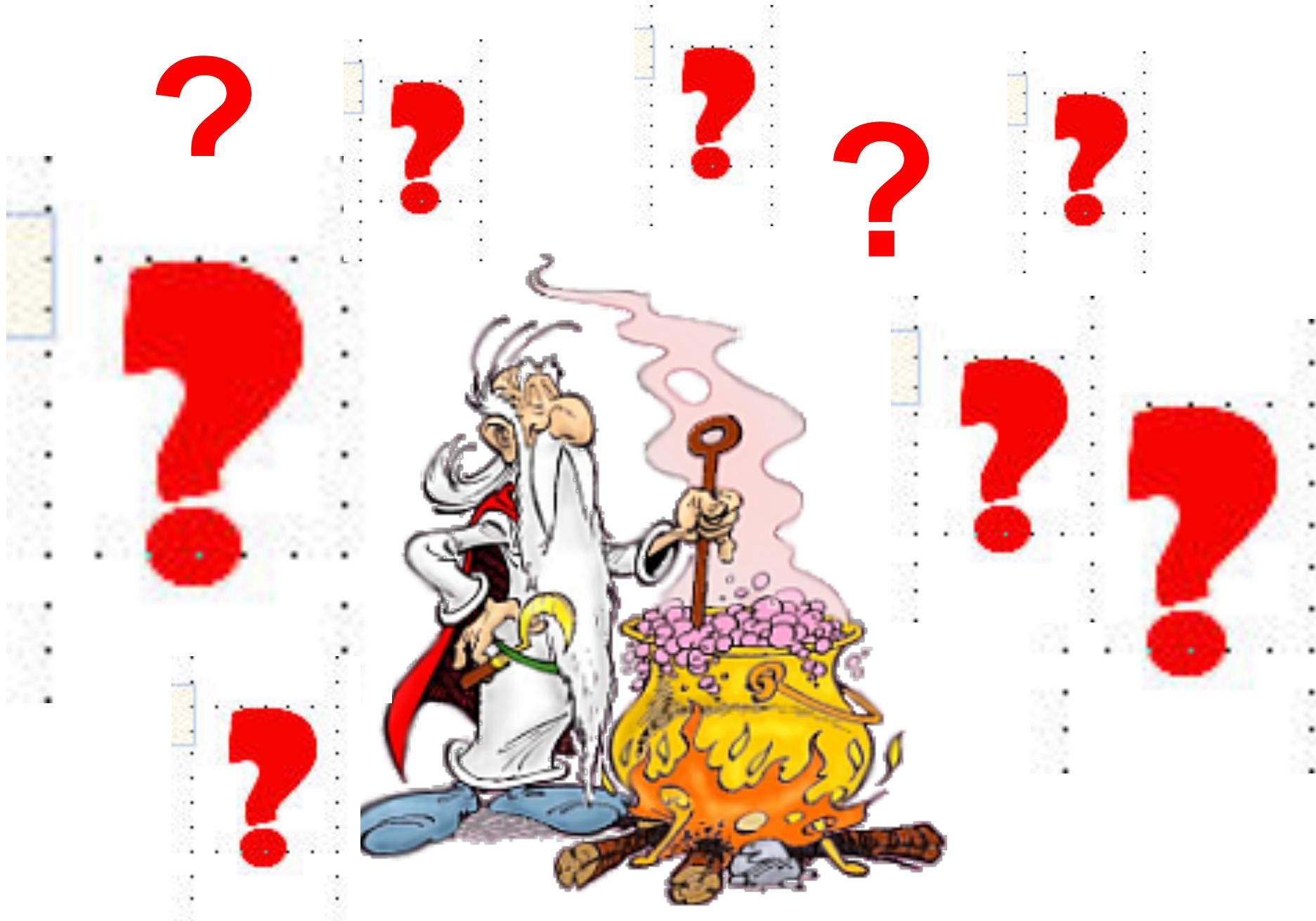
Para quê o LHC?



Gaspar
Barreira,
LIP
CERN PTP
Set.2010













EMPEDOCLES
Agrigentinus

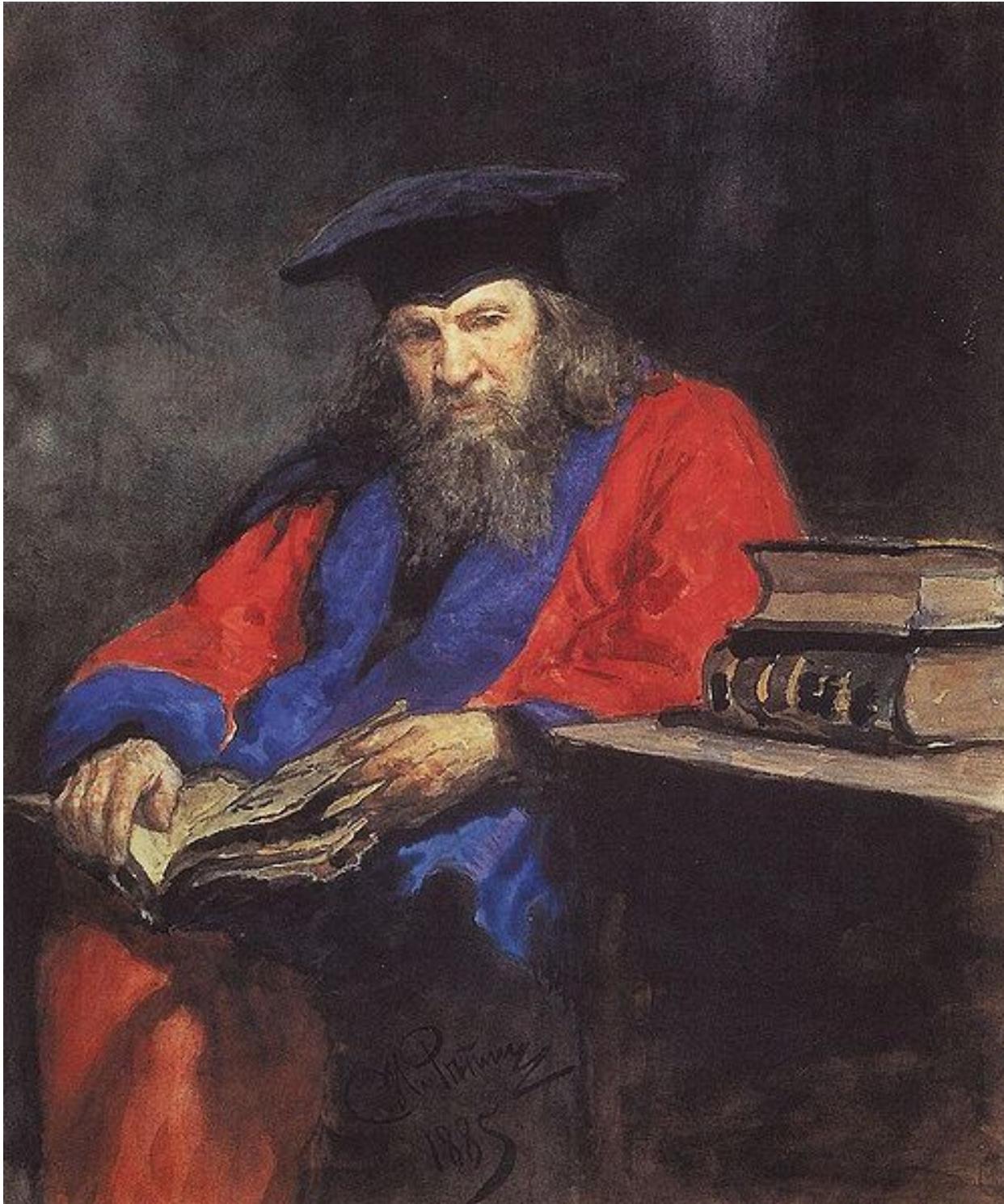




An Explication of the Characters which are used in this Book.

○	Gold.
▷	Silver.
♂	Iron.
♀	Mercury.
♃	Jupiter.
♄	Venus.
♅	Lead.
♆	Antimony.
♇	Sal armoniac.

A. F.	<i>Aqua Fortis.</i>
A. R.	<i>Aqua Regis.</i>
S. V.	<i>Spirit of Wine.</i>
■■■	<i>Sublimate.</i>
■■■	<i>Precipitate.</i>
■■■	<i>Amalgama.</i>
▽	<i>Water.</i>
△	<i>Fire.</i>



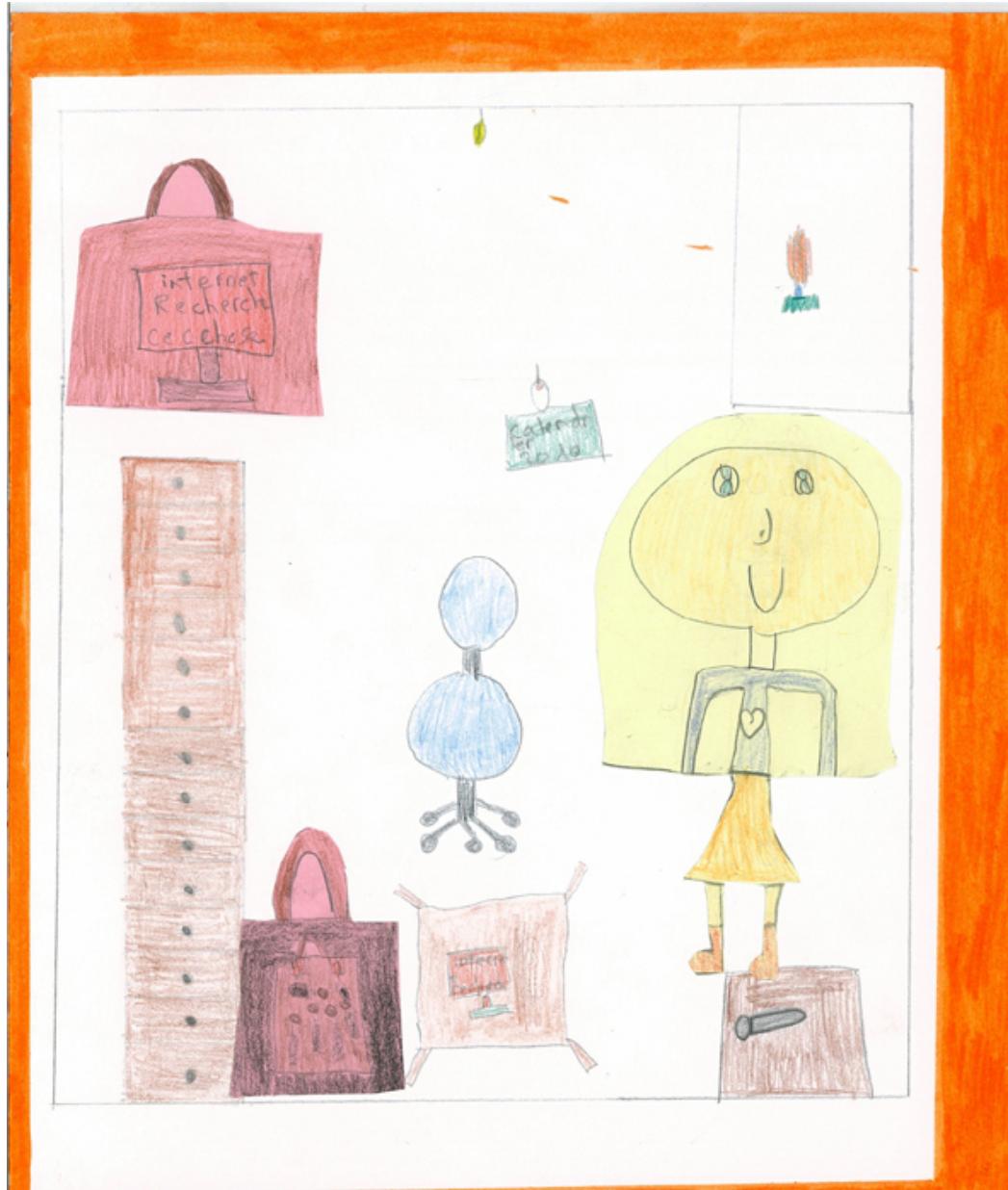
Dmitri Mendeleiev

Schwarzwälder Chorale

<p>17.1 17.1 $\frac{17.1}{11.0}$</p> <p>2. 20° R. 11.</p> <p>3. 60° 3. 90° 3. 120° 3. 150° 3. 180°</p> <p>4. 60° 4. 90° 4. 120° 4. 150° 4. 180°</p> <p>5. 60° 5. 90° 5. 120° 5. 150° 5. 180°</p> <p>Lap K. 2.0 G. 2.0 R. 1.0 G. 1.0 H. 1.0</p> <p>2.-o O.-o A.-o E.-o C.-o B.-o B.-o</p> <p>Aul. 1.0</p> <p>Lap K. 1.1 G. 1.1 R. 1.0 G. 1.0 H. 1.0</p> <p>2.-o O.-o A.-o E.-o C.-o B.-o B.-o</p> <p>Lap K. 2.0 G. 2.0 R. 1.0 G. 1.0 H. 1.0</p> <p>2.-o O.-o A.-o E.-o C.-o B.-o B.-o</p> <p><u>Chorus</u></p>	<p>G. 1.0 Lap 2.0 3.0</p> <p>G. 1.0 2. 110° 2. 140° 2. 170° 2. 200°</p>
---	--

Schwarzwälder Chorale

	Ti=50	Zr=90	?[2]=180
	V=51	Nb=94	Ta=182
	Cr=52	Mo=96	W=186
	Mn=55	Rh=104,4[3]	Pt=197,4[4]
	Fe=56	Ru=104,4	Ir=198
	Ni=Co=59	Pd=106,6	Os=199
H=1[5]	Cu=63,4	Ag=108	Hg=200
	Be=9,4 Mg=24	Zn=65,2	Cd=112
	B=11 Al=27,4	?[6]=68	Ur=116[7] Au=197?
	C=12 Si=28	?[8]=70	Sn=118
	N=14 P=31	As=75	Sb=122 Bi=210?
	O=16 S=32	Se=79,4	Te=128?
	F=19 Cl=35,5	Br=80	J=127[9]
Li=7	Na=23 K=39	Rb=85,4	Cs=133 Tl=204
	Ca=40	Sr=87,6	Ba=137 Pb=207
	?[10]=45	Ce=92[11]	
	?Er=56	La=94	
	?Yt=60	Di=95	
	?In=75,6	Th=118?	



Un physicien C'est un monsieur ou une dame. ils doivent chercher des choses dans l'ordinateur il travaille dans un bureau il utilise des outils, tournevis, des clous,..

Electrão 1897 John Joseph Thomson.

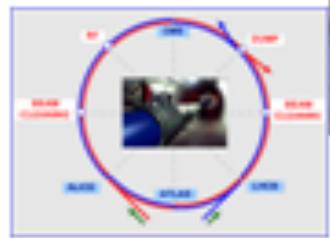
Protão 1886 Eugene Goldstein

Neutrão 1932 James

THE STANDARD MODEL

		Fermions			Bosons	
Quarks	u up	c charm	t top	γ photon	Force carriers	
	d down	s strange	b bottom	Z Z boson		
	ν_e electron neutrino	ν_μ muon neutrino	ν_τ tau neutrino	W W boson		
Leptons	e electron	μ muon	τ tau	g gluon		
	Higgs [*] boson					
	*Yet to be confirmed					

Source: AAAS



LABORATORIO DE INSTRUMENTACIÓN Y FÍSICA EXPERIMENTAL DE PARCÍCULAS



-2070 M
Sudbury,
Canada

-1100 M
Bulby Mine, UK

-100 M
CERN, CH
AUGER
Pampa Argentina

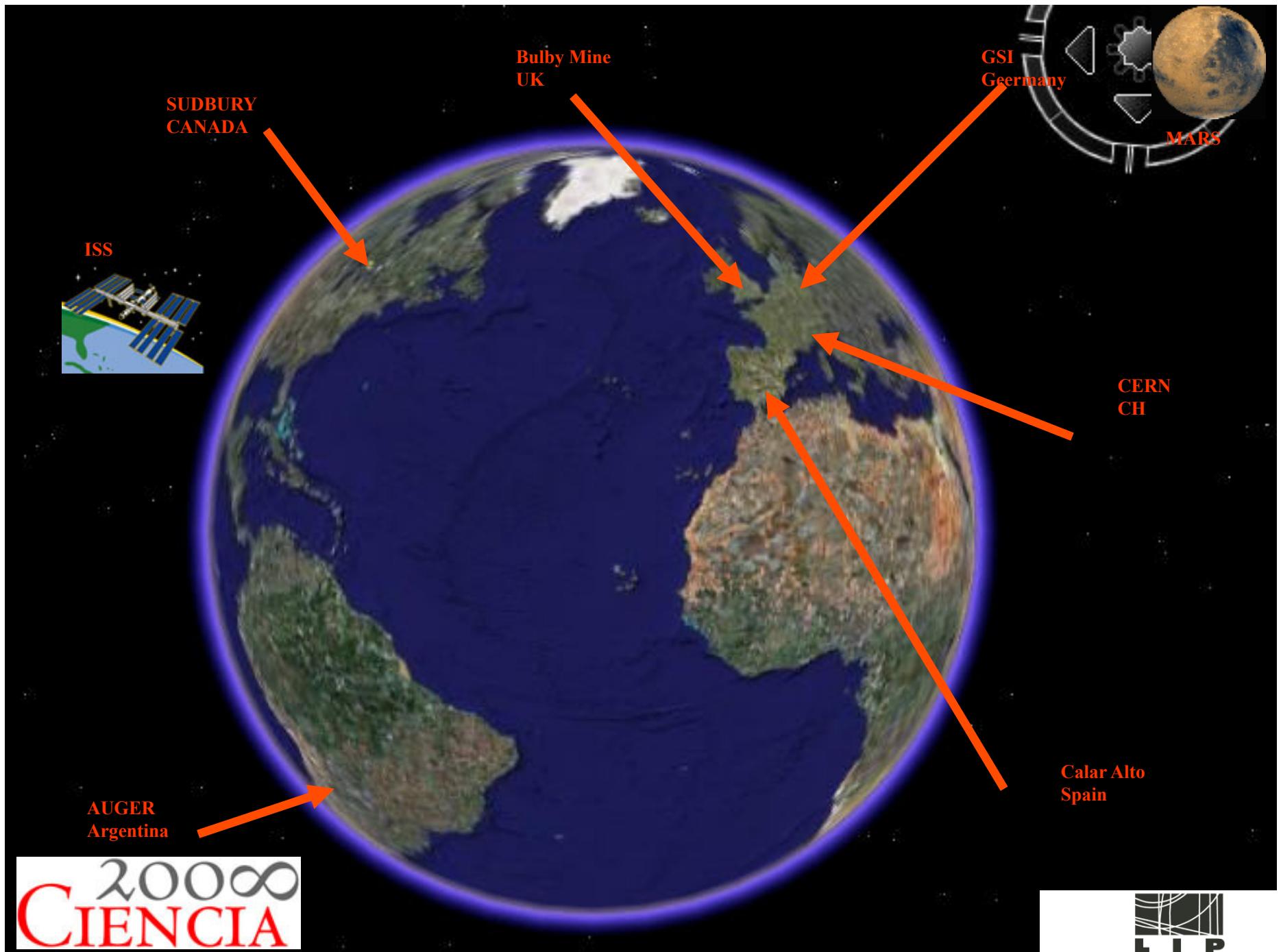
GSI
Germany

+2168 M
Gaw-CalarAlto
Spain

+200 KM
ISS, Earth
surroundongs



Millions and millions Km away
MARS



LABORATÓRIO DE INSTRUMENTAÇÃO E FÍSICA EXPERIMENTAL DE PARCÍCULAS



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ZECA AFONSO

Eu vou ser como a Toupeira

*Eu vou ser como a toupeira
Que esburaca
Penitência, diz a hidra
Quando à seca
Eu vou ser como a gibóia
Que atormenta
Não há luz que não se veja
Da charneca*





The cost of each new U.S. DDG 1000 destroyer nearly doubled to just under \$6 billion after the Navy decided to halt the program at just three ships. The ships are being built by Northrop Grumman Corp ([NOC.N](#)) and General Dynamics Corp ([GD.N](#)), and come with a combat system built by Raytheon Co ([RTN.N](#))..

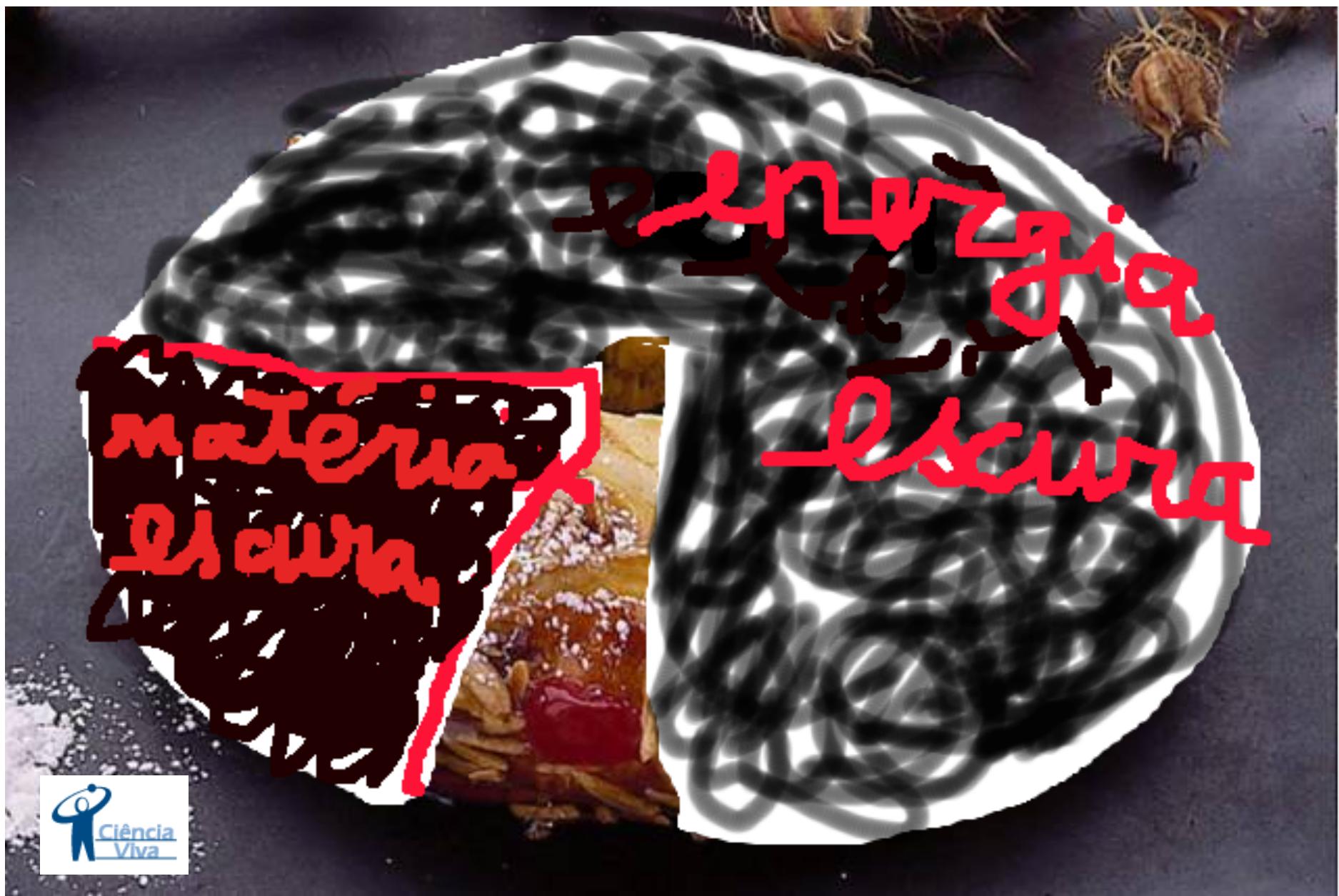
a [Nimitz-class](#) carrier powered by two [nuclear reactors](#) and four [steam turbines](#) is 1,092 feet (333 m) long and costs about \$4.5 billion

Segundo o jornal, "com os atrasos ocorridos no início do processo, esse preço (769,3 milhões de euros) disparou para 832,9 milhões de euros, sem juros um aumento de 8%. Com juros, esse valor supera os mil milhões de euro."



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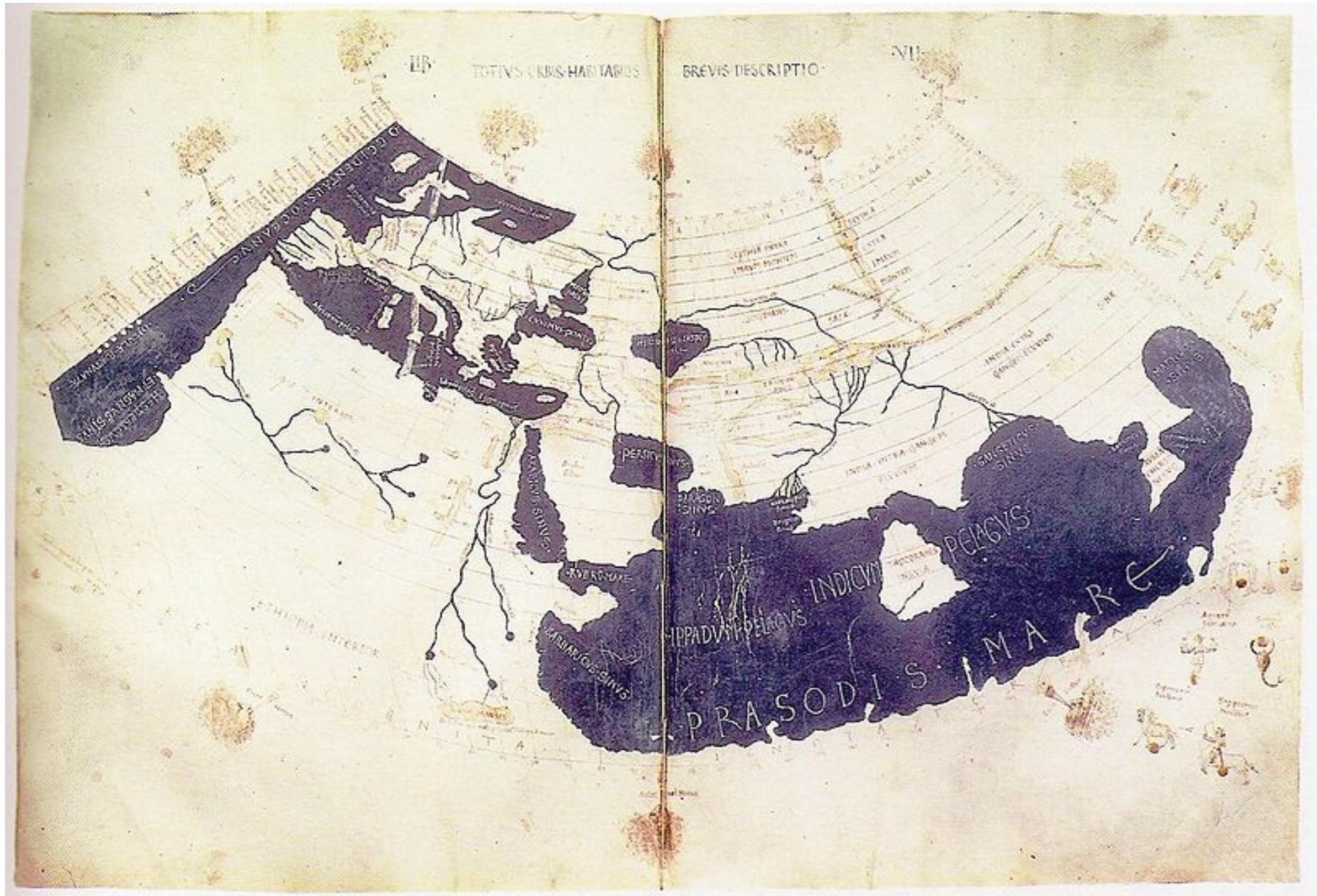












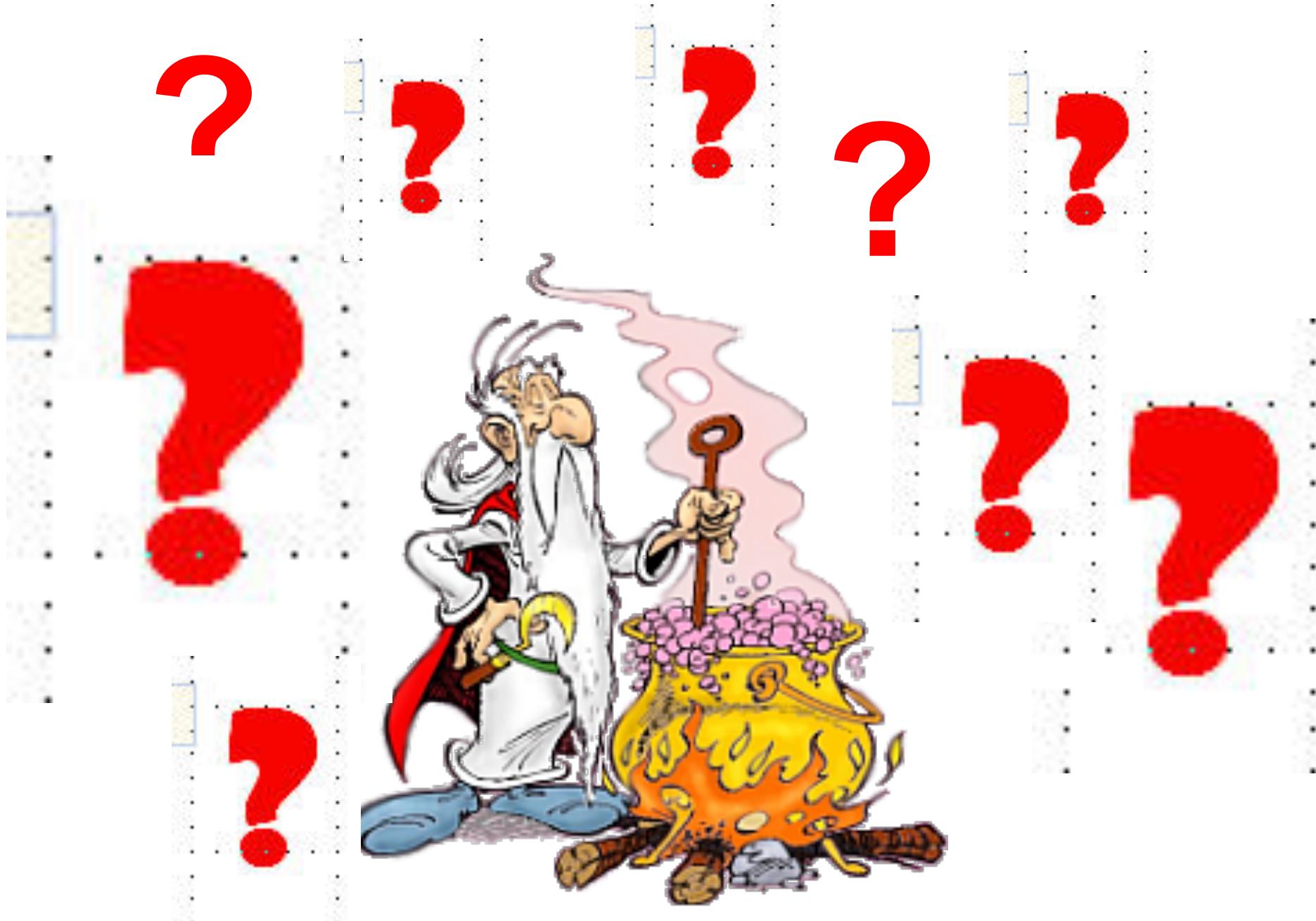
$$R = \frac{m_e k^2 e^4}{4\pi c \hbar^3}$$

$$S = \frac{4kC^3}{4\hbar G} \quad T = \frac{\hbar C^3}{8\pi kGM} \quad I = \frac{\hbar}{mv}$$



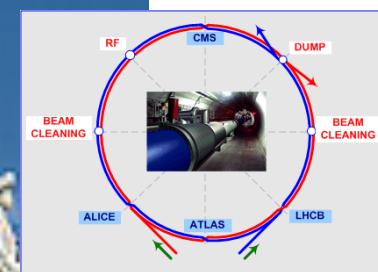
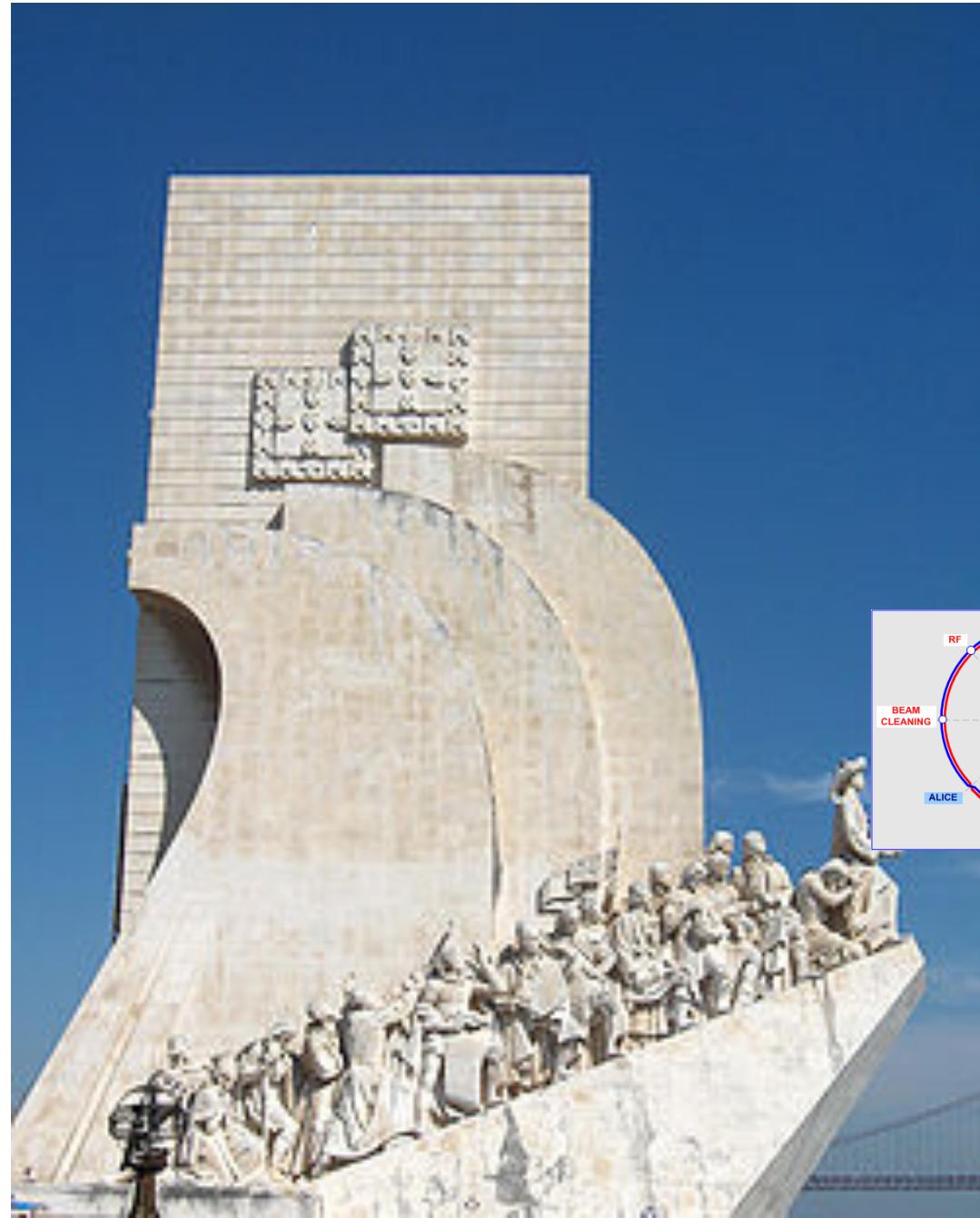
$$\Delta_{\mu F \lambda \nu} = J_J$$

$$E = mc^2$$









**NAVEGAR
É PRECISO**

