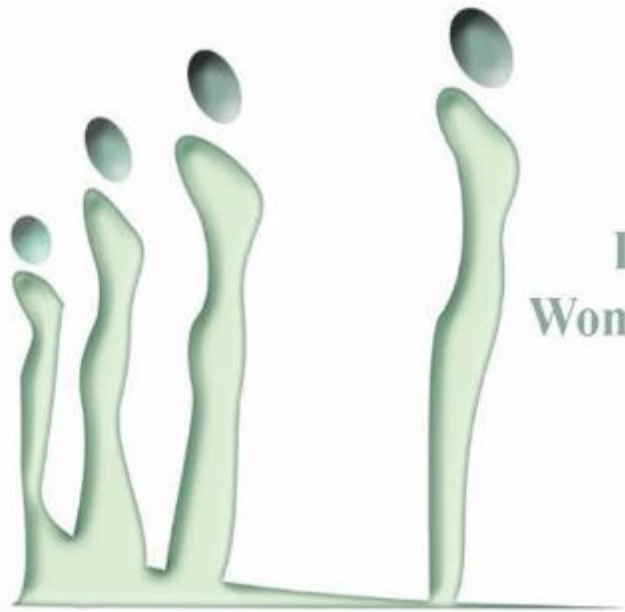


# Non solo ricerca

## storie di una fisica dalle molteplici carriere



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Women and Girls in Science**

*donne e uomini insieme per superare gli stereotipi*



**Manuela Cirilli**

CERN Knowledge Transfer Group  
Section Leader for Medical Applications

# CERN



~2700 staff members

>700 fellows

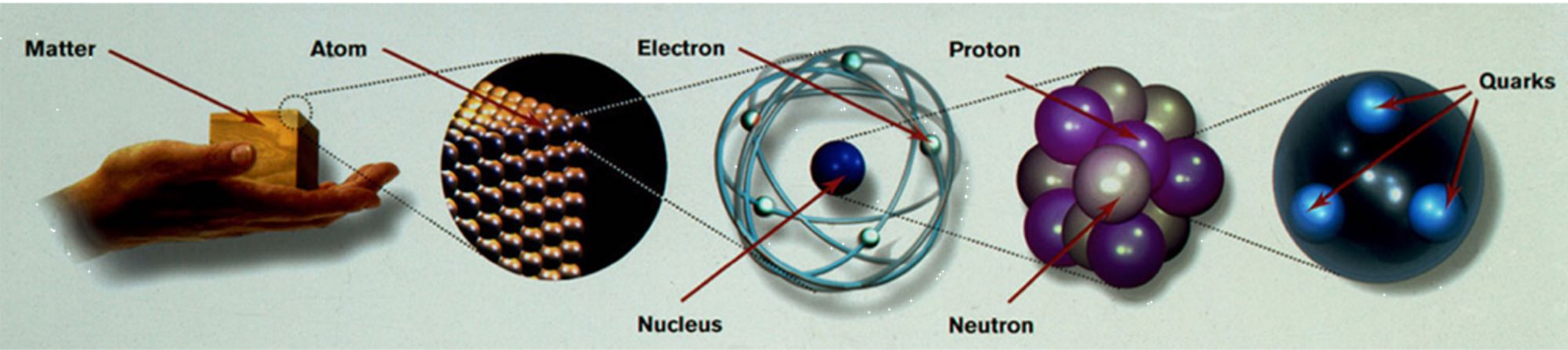
>12000 users of 110 nationalities, from institutes in more than 70 countries

**23 Member States:** Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

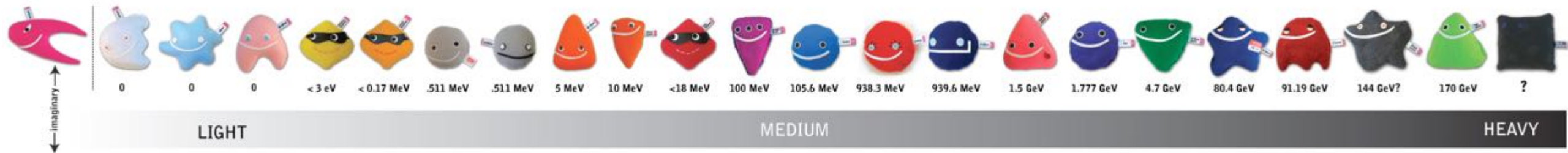
Cyprus, Estonia and Slovenia are **Associate Member States in the pre-stage to Membership.**

Croatia, India, Lithuania, Pakistan, Turkey and Ukraine are **Associate Member States.**

# Fisica delle particelle



## PARTICLE MASS SPECTRUM



*Ricerca di base*

# CERN e il Large Hadron Collider (LHC)

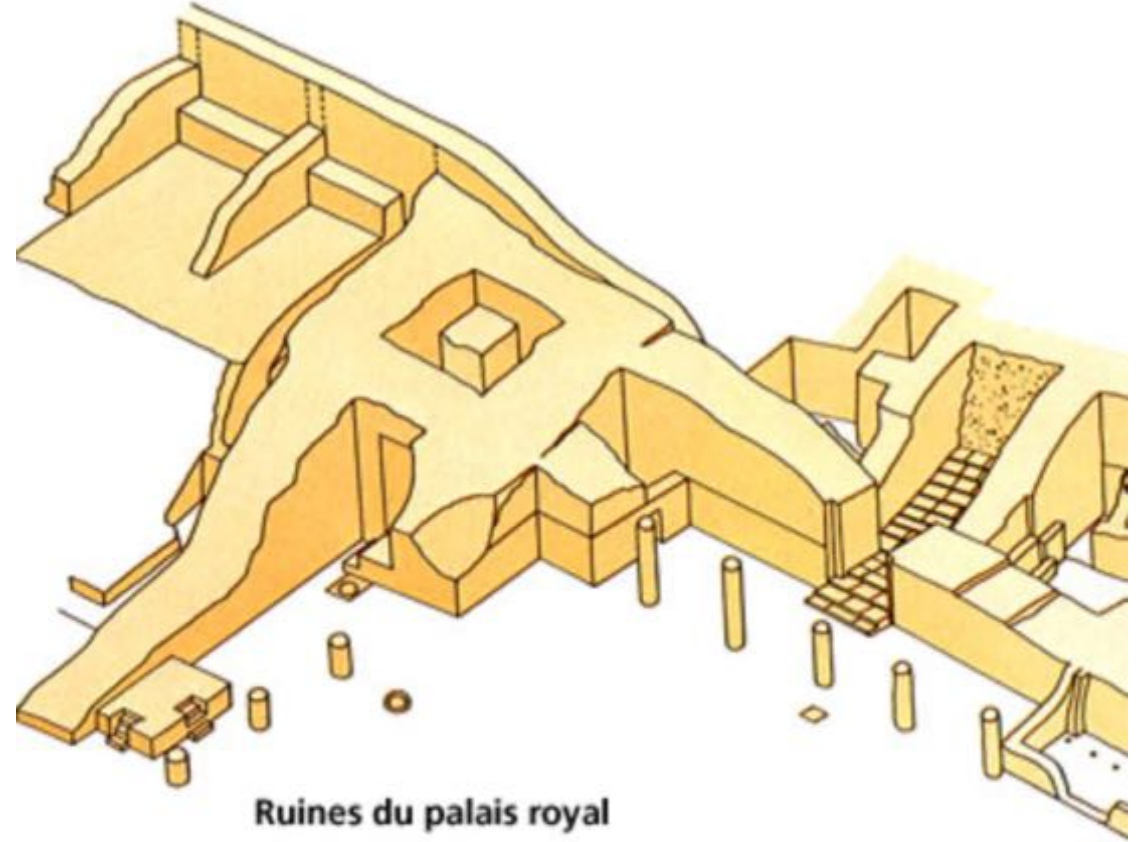


# Il mio lavoro oggi



Trasferimento tecnologico:  
dalle tecnologie del CERN alle applicazioni mediche

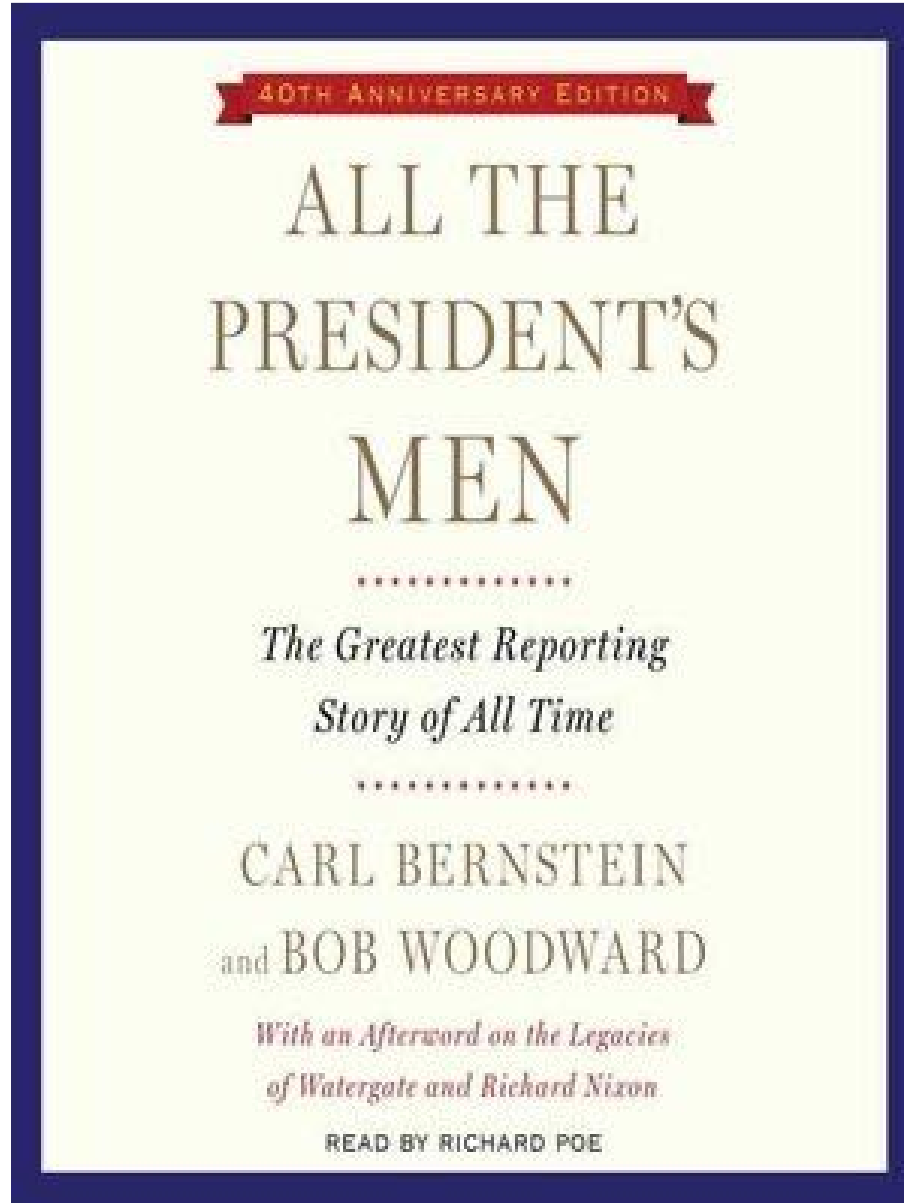
# Da piccola volevo fare...



**Ruines du palais royal**

C. Cataldi Tassoni effectua le premier dessin des parties fouillées du palais royal d'Ébla. Les archives se trouvaient dans la petite pièce située à droite des cinq piliers.

Da piccola volevo fare...



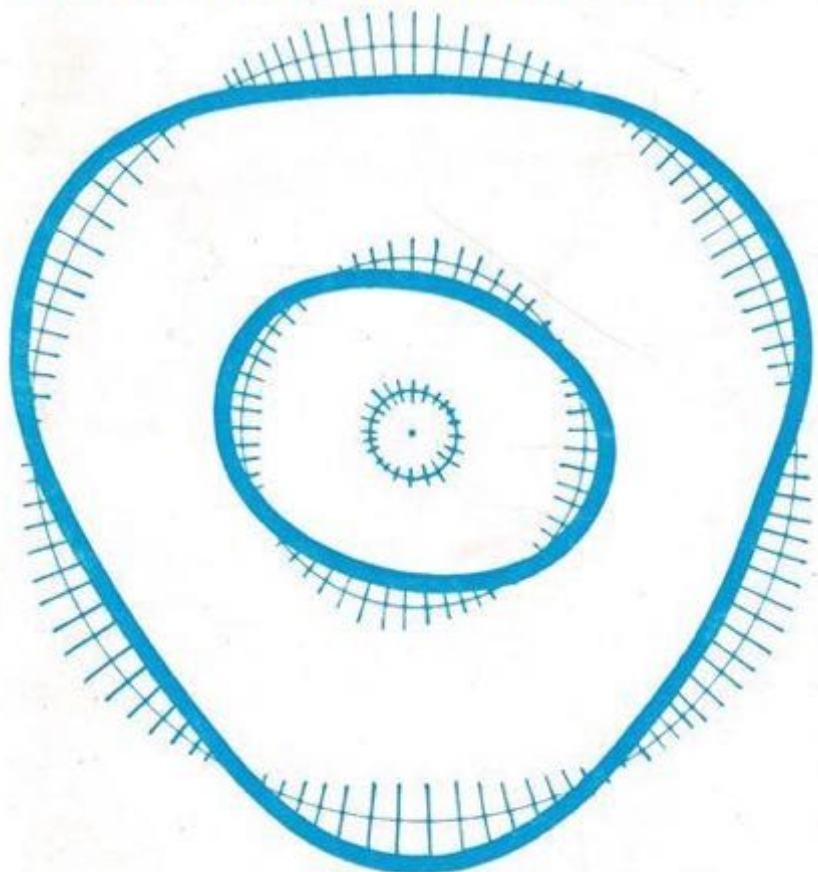




GEORGE GAMOW

# TRENT'ANNI CHE SCONVOLSERO LA FISICA

LA STORIA DELLA TEORIA DEI QUANTI





SAPIENZA  
UNIVERSITÀ DI ROMA

1989 - 1995



SCUOLA  
NORMALE  
SUPERIORE

1997 - 1999

# Ma che fa un fisico?

$$\frac{v \frac{dv}{dr}}{1} = \frac{-\Omega_k^2 r + \Omega^2 r}{2} - \frac{1}{4} \frac{dp}{dr} + \frac{\Gamma^r}{\alpha\beta} u^\alpha u^\beta$$



$$v \frac{dv}{dr} - g \frac{dv}{v} = f(r)$$

$$\frac{dv}{dr} = \frac{f(r)}{v - \frac{g}{v}} = \frac{f}{v^2}$$

$$u^r \frac{du^r}{dr} + \Gamma_{\alpha\beta}^r u^\alpha u^\beta + \frac{h^{rr}}{p \pm p} \frac{\partial_r(pH)}{H} + \Gamma_{\alpha\beta,zz}^r u^\alpha u^\beta + 0 = 0$$



$$\frac{h^{rr}}{p} \left( \partial_r p + p \frac{\partial_r H}{H} \right)$$

$$p = \frac{p k T}{v}$$

$$v^2 - c_s^2$$

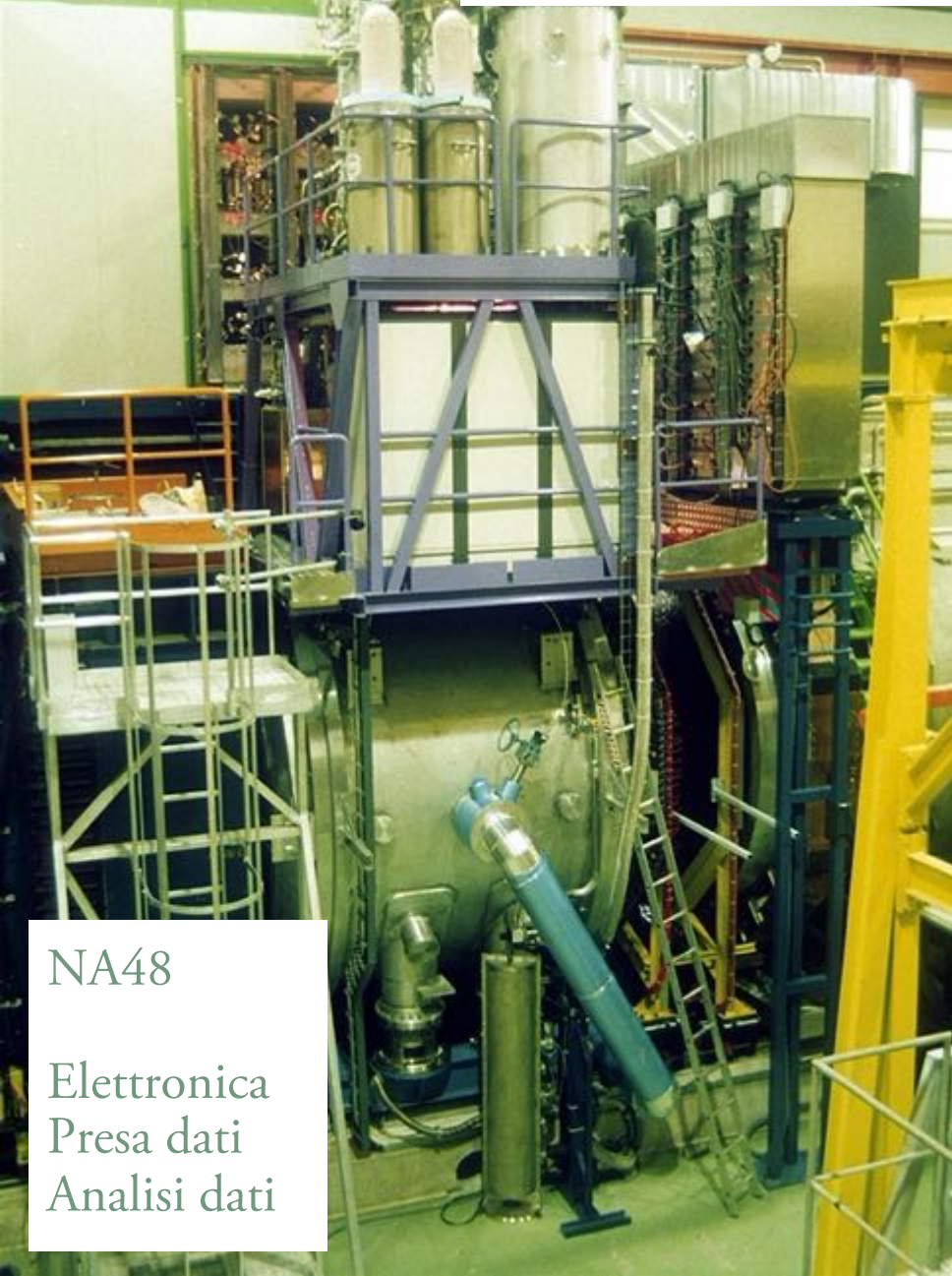
$$\frac{\partial_r(p c_s^2)}{p} = c_s^2 \frac{\partial_r p}{p}$$

$$= c_s^2 \frac{p'}{p}$$

$$v = w v_0 \rightarrow v_0 \partial_r v_0$$

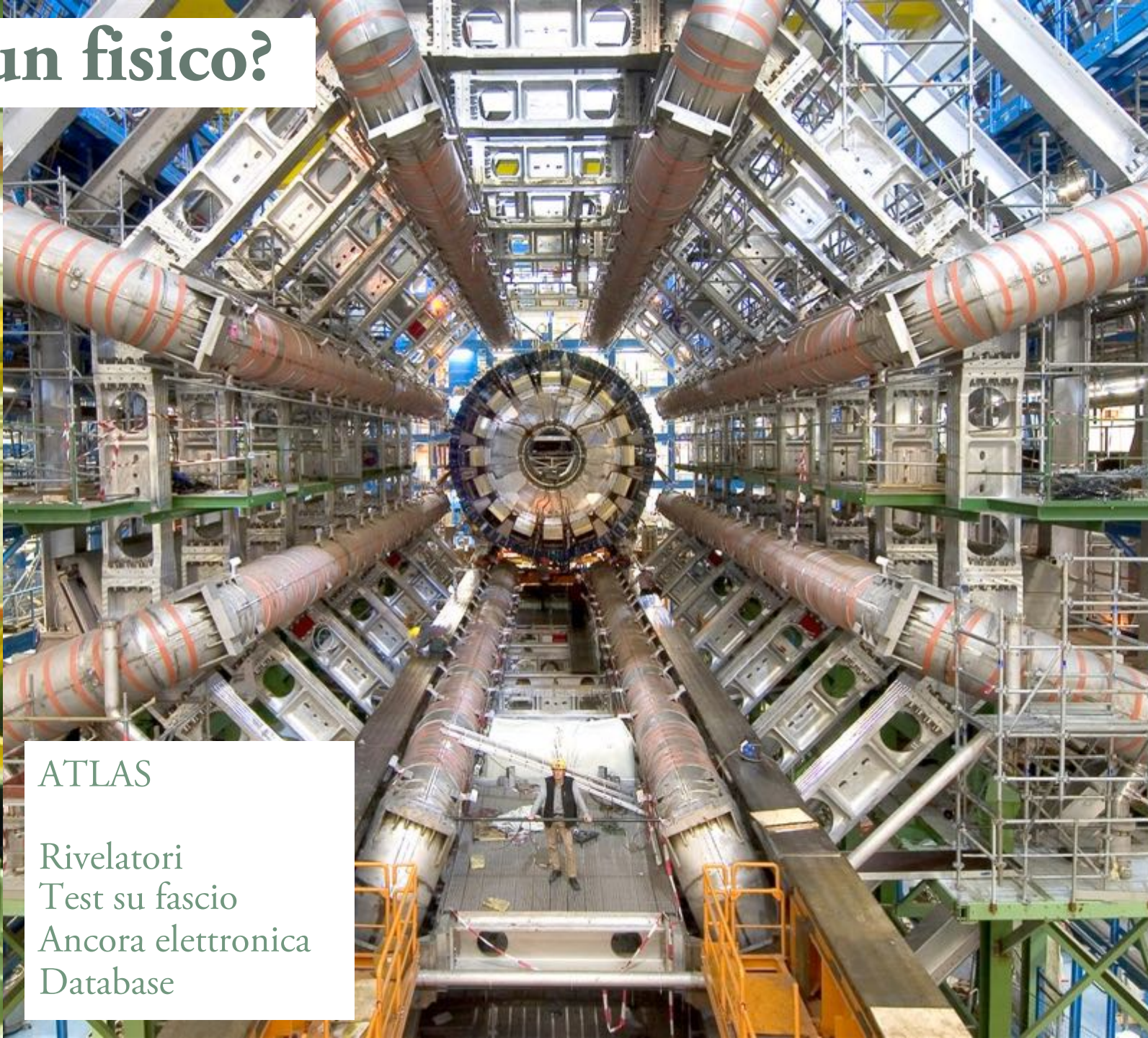
$$w v_0 (v_0 \partial_r w + w \partial_r v_0) + v_0^2 w \partial_r w + f$$

# Ma che fa un fisico?



NA48

Elettronica  
Presi dati  
Analisi dati



ATLAS

Rivelatori  
Test su fascio  
Ancora elettronica  
Database

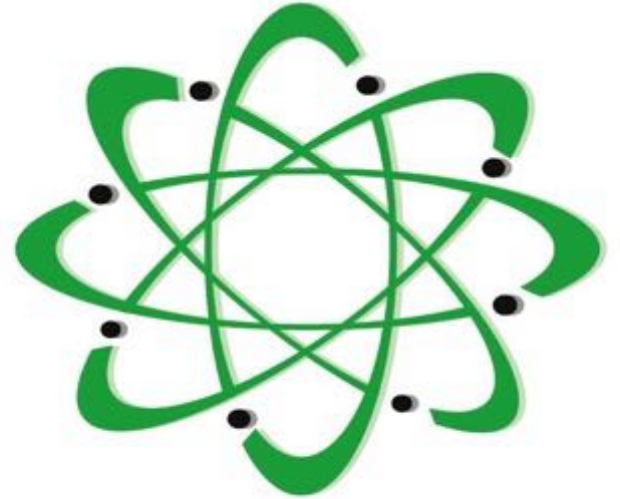
# Nel mentre...





2009

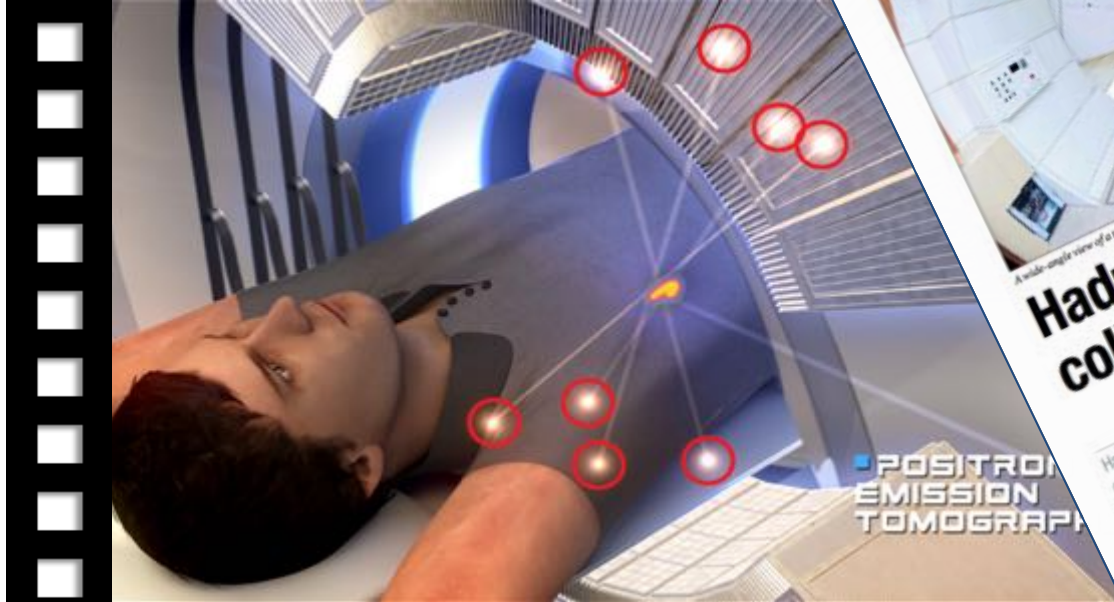
MASTER IN GIORNALISMO E COMUNICAZIONE  
ISTITUZIONALE DELLA SCIENZA



università di ferrara  
DA SEICENTO ANNI GUARDIAMO AVANTI.

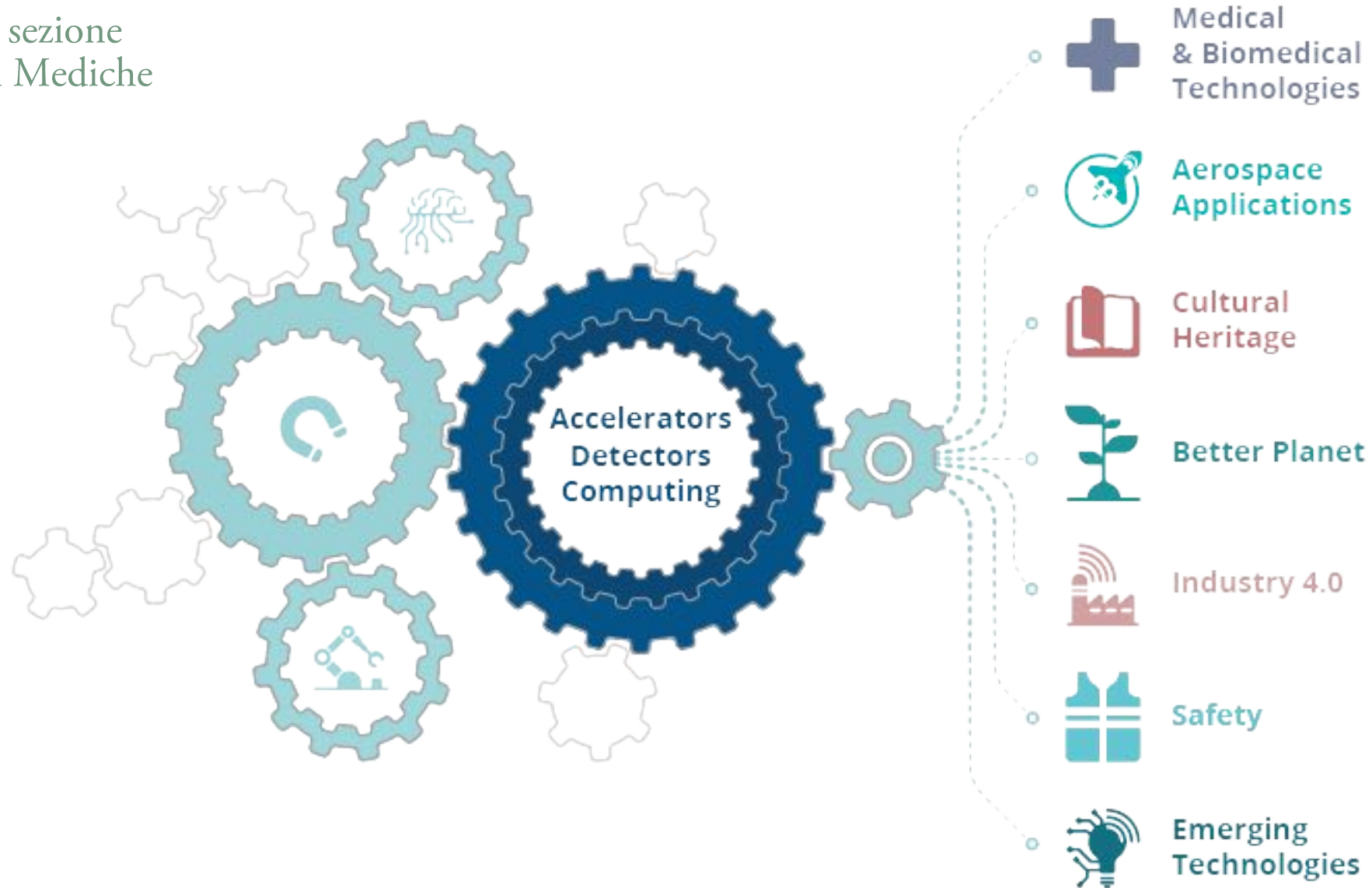
# 2010: CERN Knowledge Transfer Group

Comunicazione  
Gestione di progetti  
Organizzazione eventi



# 2016: CERN Knowledge Transfer Group

A capo della sezione  
Applicazioni Mediche





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