# SCIENCE AND EDUCATION IN ALBANIA

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#### ALBANIA

- South Eastern European Country
- 3.5 millions of inhabitants
- 28 thousand sqkm
- GDP per capita about 7500 Euros
- Member of NATO, EU Candidate member
- Capital: Tirana, about 500 thousand inhabitants





### HIGHER EDUCATION AND RESEARCH

- First Albanian University (Tirana University) founded in 1957
- In 1990 we inherited 8 HEI, all public
- First private HEI started in 2003
- Bologna system installed since 2005



- Now 42 HEI (59!); about 160.000 students
- The financing for education (5+4+3+HE) < 3% of GDP</li>

for HE 0.4-0.6 %

for research about 0.05%

The financing per student is about 800 euro/year

#### **PUBLIC HEI**

Public financing about 460 Euro per student/per year

15 Public HEI (12 universities), half in Tirana, 6 regional

(Shkodra University)

- About 80% of students
- 700 study programs (270 bachelor)
- Tirana University, the biggest one -- this year about 5000 new bachelor students enrolled

# PRIVATE HEI

- Financing about 1100 Euro per student/per year
- 27 (44!) private HEI, 800 study programs, most of them **non acredited**
- About 20% of students
- No natural sciences programs
- No diploma in physics



#### **ENGINEERING STUDIES**

Tirana Polytechnic University (TPU)

 The number of new students 2014: about 1600 (bachelor)

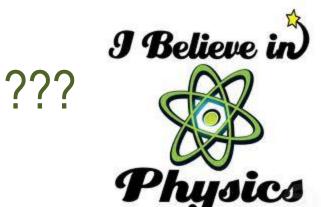


• Study programs, 22 bachelor: Telecommunication, Electronics, Informatics, Electric, Mechanic, Environment, Construction and Architecture, Engeneering of Mathematics and Physics, Textile, Geology

## STUDIES IN PHYSICS

6 bachelor programs in physics:

Tirana, Shkodra, Elbasan, Korca, Polytechnic University
650 Students enrolled this year



???

Master of Physics

Master: Teachers of Physics for High Schools

Master: Engineering of Physics

Masters: Teachers of Physics for Low Schools

# PHYSICS IN TIRANA UNIVERSITY

**100** students enrolled each year about 35 diplomas each year in bachelor studies

about 30 in master studies

#### **Department of Physics**

28 full time members

#### Research

Lattice Gauge Theory; Astrophysics; Complex Systems; Biophysics; Solid State Physics

# RESEARCH IN PHYSICS

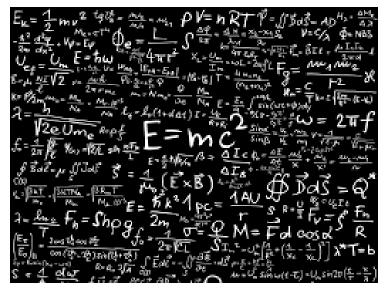
Lattice gauge theory: Formulation of ultralocal chiral fermion theories; restoration of the hypercubic symmetry of such formulations; multigrid algorithms. Small cluster of 8 PCs; Computing facilities installed in the Balkan

Astrophysics:

Gamma Ray Bursts;

Dark galactic bodies

Gravitational Microlensing method



 Complex systems: financial data; stock market data; integration of network analysis and dynamic modelling; crowd behaviour

# **ACTIVITIES WITH CERN**

May 16, 2011, Faculty of Natural Sciences, Tirana University, one day workshop on Large Hadron Collider.

October 8-9, 2012, Tirana University, two days workshop on Recent LHC Results and Related Topics.



**Sarajevo School for High Energy Physics**, with a continuous participation of Albanian students in 2012, 2013 and 2014 editions. About 7-8 students each year. In 2014, 12 Albanian students

**CERN Summer Student Program 2014--**one Albanian student