



*Institute of Accelerating Systems and Applications*

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Erasmus+



Institute of Accelerating Systems & Applications - IASA

[www.iasa.gr](http://www.iasa.gr)

**Evangelos Gazis**

Prof. Experimental Particle Physics

National Technical University of Athens – NTUA

Deputy Director of IASA



## **Team Structure**

- Dr. Eleni Adamidi, MSc Applied Physicist, PhD Electrical & Computer Engineering, NTUA
- Dr. Thalia Xenofontos, MSc Applied Physicist NTUA, PhD Nuclear Engineering, AUTH & Ecole Polytechnique, Paris
- Ms Maria Kainourgiaki, MSc Electrical & Computer Engineering, NTUA
- Prof. Evangelos Gazis, NTUA/IASA



The Institute of Accelerating Systems and Applications (IASA) is a unique institution founded by the cooperation of the two oldest and famous universities in Greece:

- [National & Kapodistrian University of Athens \(NKUA\)](#)
- [National Technical University of Athens \(NTUA\)](#)



The Institute is affiliated with six university departments:

NKUA	NTUA
Medicine	Electrical & Computer Engineering
Physics	Chemical Engineering
Informatics	Applied Mathematical & Physical Sciences



## Activities

IASA is open to researchers from the international community and access. It is determined purely on scientific merit.

IASA is currently engaged in Research projects in the following areas, with more than 50 EU projects, currently, in operation:

- Nuclear and Particle physics
- Nuclear medicine and imaging
- Accelerator Science & Engineering
- Automated Control
- Scientific Computing
  
- Environmental Physics
- Microwave Engineering
- Telecommunications
- **Science for Education and Society**
- **Outreach of Science and Engineering**
- **Knowledge & Technology Transfer**



## **IASA Experience and Contribution**

A long experience from 2000, on transferring Nuclear and Particle physics research results to → High School Teachers (HST) and High School Students (HSS),

- Lectures, seminars, training summer schools for HST
- lectures, seminars, CERN Masteclasses, summer schools for HSS

in cooperation with:

- CERN-Education Division,
- Greek Ministry of Education,
- Filekpedeftiki Etaireia,
- Aikaterini Laskaridis Foundation,
- Perimeter Institute, Toronto, Canada,
- Hellenic Society for the Study of the High Energy Physics –EESFYE,
- Hellenic Physics Society-EEF



## **IASA Experience and Contribution**

<b>EESFYE/EEF</b>	<b>AIK. LASKARIDIS FDN</b>
<b>2000-2019</b>	<b>2017-18 &amp; 2018-19</b>
<b>More than 150 lectures to high schools in Greece</b>	<b>15 lectures to high school in Attica</b>

<b>HST Training at CERN</b>	<b>HS students Summer School for CERN</b>
<b>2007-2019</b> [More than 1'000 HSTs have been trained]	<b>NTUA-Lavrion Cultural &amp; Technological Park, 2018</b> <b>20 students, 8 Lecturers, EESFYE, EEF</b>
	<b>Arsakeion School, Ekali, 2019</b> <b>40 students, 8 Lecturers, EESFYE, FE</b>
<b>To be continued on the next years</b>	<b>Arsakeion School, Ekali, 2020</b> <b>40 students, 8 Lecturers, EESFYE, FE</b>



## **IASA Experience and Contribution**

The IASA-NTUA team will provide the methodology of the knowledge dissemination to the students, to be introduced to the following items:

- The fundamental building blocks of the matter and how these have been discovered
- Quarks, Leptons and Interactions
- The composition of the Universe: 4% of the known universe, and remaining questions for the rest 26% of Dark Matter and 70% Dark Energy
- Matter and Antimatter
- Accelerator Engineering, the machines of the future
- Electronics and Computer Engineering
- The GRID computing



## **IASA Contribution and Methodology**

- Lectures
- Seminars
- Laboratories
- Summer Schools
- Internet connections
- Videos
- Special games