

# **Education & Outreach**

Georgios Daskalakis

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INPP offers opportunities to both **university** students, **high** school and **primary** school aged children.

INPP + NTUA organize postgraduate studies which leads to a **MSc** or a **PhD** degree.

Researchers + Professors teach classes in this program.

Researchers **supervise** and **guide** graduate students for the completion of their degree.



**Diploma thesis /  
practical training**

2018    **15**

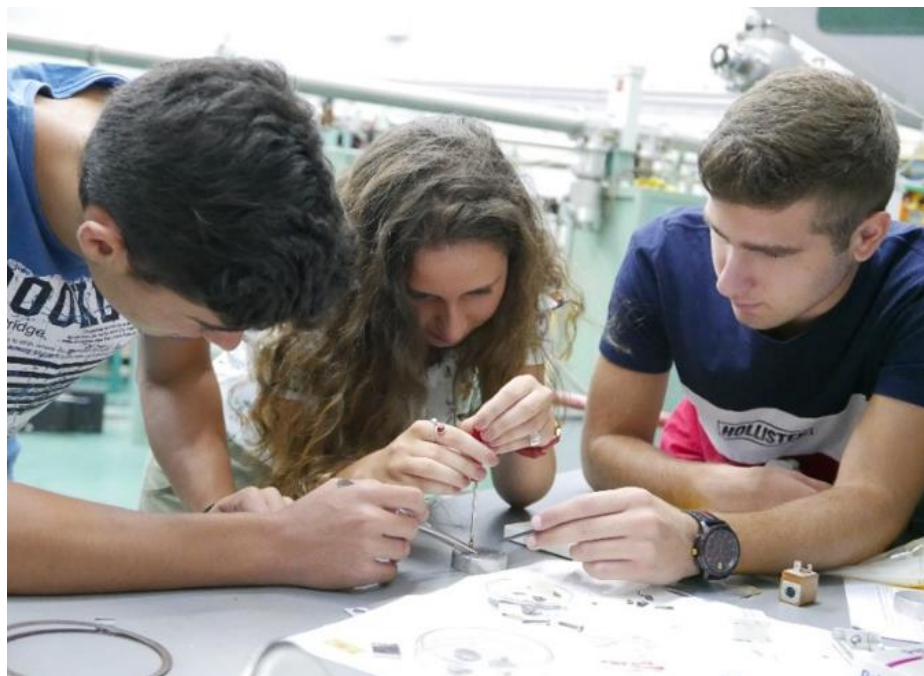
2019    **8**

The purpose of this educational activity is to involve some of the brightest high school students in Attica in experiments held in the laboratories of the INPP.

September of 2019 marked the 4<sup>th</sup> successful year of the activity.

**140** students from 18 schools of Attica participated.      **8 students were selected.**

They visited the INPP laboratories for a week, to participate in experiments related to Nuclear Physics, Particle physics and Astrophysics.



INPP organizes **every year** the Particle Physics Masterclasses (PPM) for **high school students**.

During the day, the students attend presentations for particle physics theory, accelerators, detectors and cosmology and then are trained to analyze events from CMS experiment and “discover” by themselves the Higgs Boson.

In 2019, INPP organized masterclasses in a) NCSR Demokritos b) EKFE Chania, Crete and c) local masterclasses at high Schools in Athens

PPM are organized by the International Particle Physics Outreach Group (IPPOG, <http://ippog.org/>).



In 2019 the “Greek Researcher’s Night” was held at the “Hellenic Cosmos, Cultural Centre”.

The INPP and its researchers participated in the activity by organizing **table top experiments** and by **discussing with the visitors** their research projects.



INPP scientists have been members of the organizing committees and have participated as lecturers in **Summer Schools for University graduate students and young scientists** (~400 participants).

The Summer School organized each year by NCSR “DEMOKRITOS” is a two-week course and aims to keep them up-to-date with the latest research developments at the Center and internationally.

Speeches are given by Institute members and guest speakers, while participants visit the Institute's laboratory facilities. INPP speakers are ranked at the **top positions** based on students' evaluation.

INPP & INN scientists organized the lectures at the **Aegina's Summer School** for high school students (~50 participants) from all over Greece.



INPP researchers are involved in developing and delivering popularized science lectures to public or school audiences.

Also, presentations and lectures and guiding tours are being given to schools visiting “Demokritos” and its facilities (among them INPP and the Tandem accelerator) with a few hundred visitors each year.

## *Complex Systems & Applications*

**Aim** : to promote the study of the emerging new field of complexity research.

COSA’s activities are educational and outreach through

1. a **semester course** on “Special Topics on Complex Systems”
2. **Annual Summer Schools** co-organized on the subject of “Dynamic Systems and complexity” as well as on “Mathematical modeling of Complex systems”:
3. Cosa **seminars** on “Nonlinear Science and Complexity”