







European School of Instrumentation in Particle & Astroparticle Physics

















Research in fundamental physics

Select a great physics case

Design, build and operate an experiment









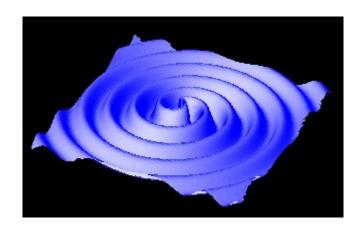
And work 10-20 years ...



Research in fundamental physics

Select a great physics case

Design, build and operate an experiment



And work sometimes even more than 30 years ...





Training / Teaching

While theoretical physics might be taught in any place worldwide

Training/teaching in instrumentation requires resources and leading experts that are more easily found next to world labs







ESIPAP in a few words

THE reference school in HEP instrumentation in the vicinity of CERN, the world agora of the HEP community.

Training of the next generation of young physicists who will carry out HL-LHC upgrades, major experimental programs in neutrino physics, astroparticle physics, cosmology, gravitational wave astronomy, and later on new collider projects.

Very broad & intensive school with REAL exams: ECTS

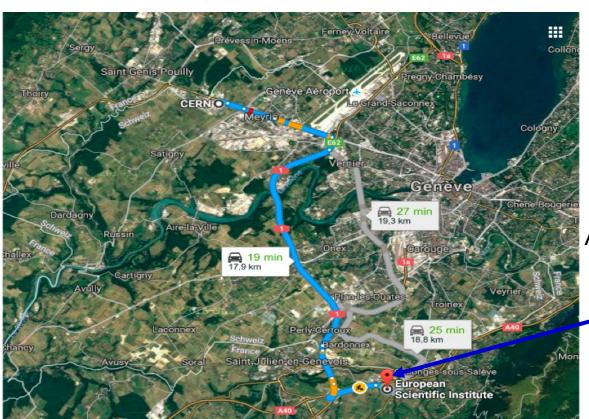
2 courses of 4 weeks each, that can be followed entirely or selectively by weeks

Selective admission of up to 2×16 students per year at international level

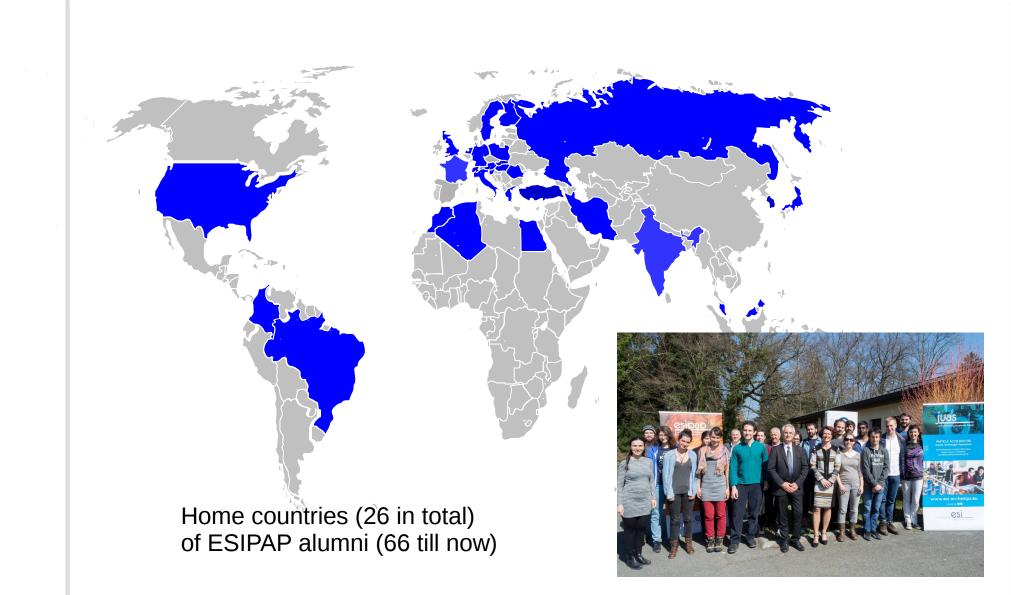
Open to Master, PhD students and junior professionals



Location



Archamps Technopole

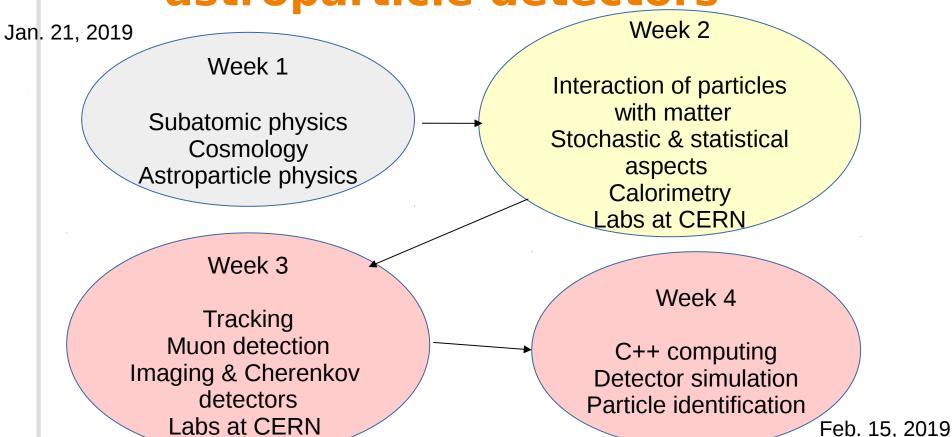


We just celebrated our 5th anniversary (Feb 15th)





Course 1 : Physics of particle and astroparticle detectors



Course 2: detector technologies and applications

Feb. 28, 2019 Week 2 Week 1 Detector technologies. Trigger & data acquisition. Signal processing & Ultra-cold neutrons. electronics. Data Handling. Project Management. Gravitational wave Labs at CERN. detection. Week 3 Week 4 Composite materials. Magnets for particle detectors. Medical applications. Python, advanced C++ Additive printing. Grid computing. Photon counting imaging. Space projects. Labs in Grenoble Mar. 15, 2019





A. Pingault PhD student in Gent

Testimony

I was one of the lucky few that participated in the first ESIPAP edition in 2014. I included both modules as part of my master's degree in nuclear engineering from Grenoble-INP PHELMA. At that time I was already aiming to work in detector instrumentation but still unsure whether in the industry or the academy. Being surrounded by experts in their respective field for these two months helped me make my choice. Shortly after finishing the school I got accepted for a PhD position in detector R&D for particle physics.

The first module provided me with the background necessary to start working in my field. During the second module, I was able to discover and discuss technology and techniques I didn't even hear about before. Some of them I would use in my work afterwards. For this, lab sessions (all at CERN this year) were a major opportunity to get hands-on experience on state of the art technology.

The schedule of the school is dense! But, from our fellow international students to the quality of the teaching materials and interesting topics, the environment we are studying in makes it worthwhile. Lecturers are all experts in their respective field. Being able to interact directly with them in such conditions is a rare opportunity.

All in all, it was a superb first work experience in such international context. I would gladly urge anyone interested in detector instrumentation to attend the ESIPAP school.

For further information

Video of presentation: https://youtu.be/f2ggf4P36cc

Contact: esipap@esi-archamps.eu

Next session: course 1, 21 Jan. - 15 Feb. 2019

course 2 , 18 Feb. - 15 Mar. 2019

Registration: www.esipap.eu

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