CERN Opportunities

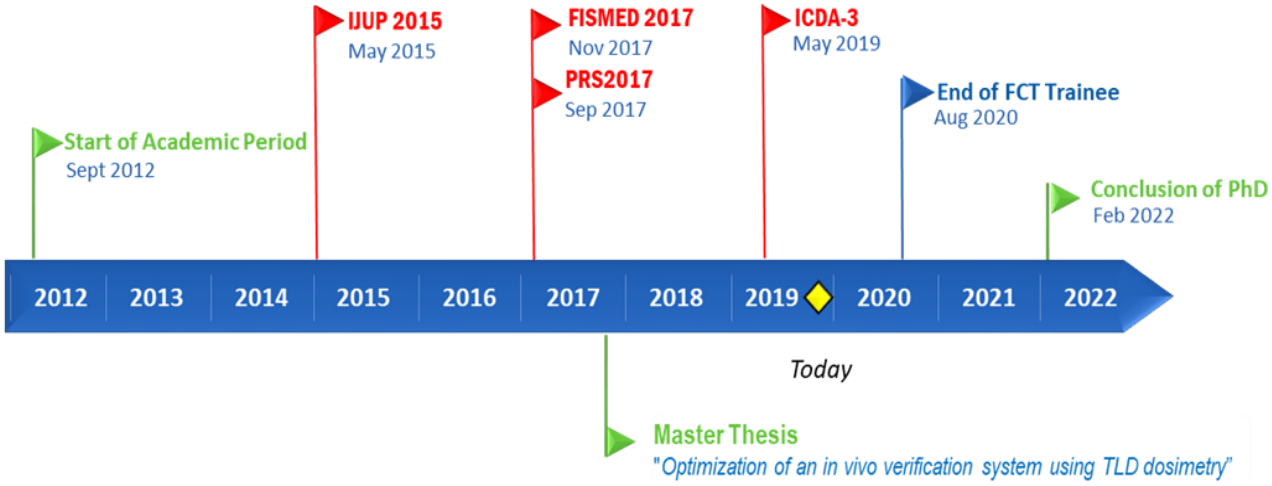
Testimonies from trainees, fellows, students, profs

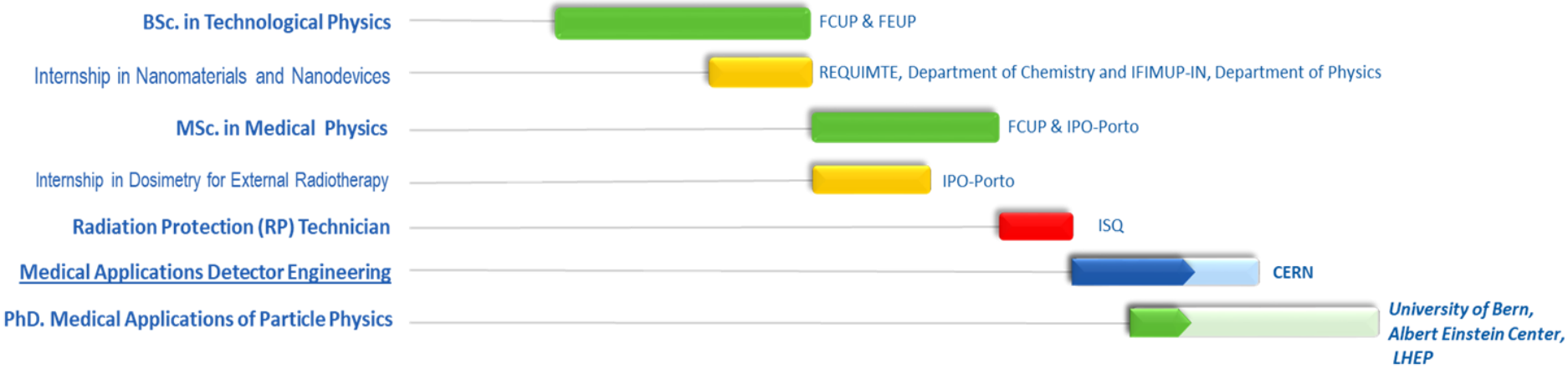
Andreia Maia Oliveira

Master in Medical Physics
@ Universidade do Porto

Detector Development for Medical Applications (FCT Trainee 09.2018)
PhD student in Medical Applications of Particle Physics (University of Bern 02.2019)

Andreia Maia Oliveira





Rita Ferreira

PhD in Chemical and Biochemical Engineering
@ Universidade Nova de Lisboa

Knowledge Transfer for Medical Applications (FCT Trainee 10.2016 – 09.2018)
Fellow (02.2019 - Present)

Tiago Neves

Master Physics Engineering @ Universidade de Coimbra

Researcher at Institute of Systems and Robotics (ISR) (09.2013 – 03.2015)
Fiber Optic Sensors for Humidity Applications (FCT Trainee 05.2015 – 04.2017)

PhD Student (EPFL) on Distributed Fiber Sensors (07.2017 – Present)

Ana Luísa Carvalho

Master in Engineering Physics
@ Instituto Superior Técnico

Master student at the ATLAS group at LIP (02.2018 - 11.2018)
PhD student for the ATLAS experiment at LIP/IST (02.2019 - Present)

Tiago Araujo

PhD Biomedical Engineering
@ Universidade Nova de Lisboa

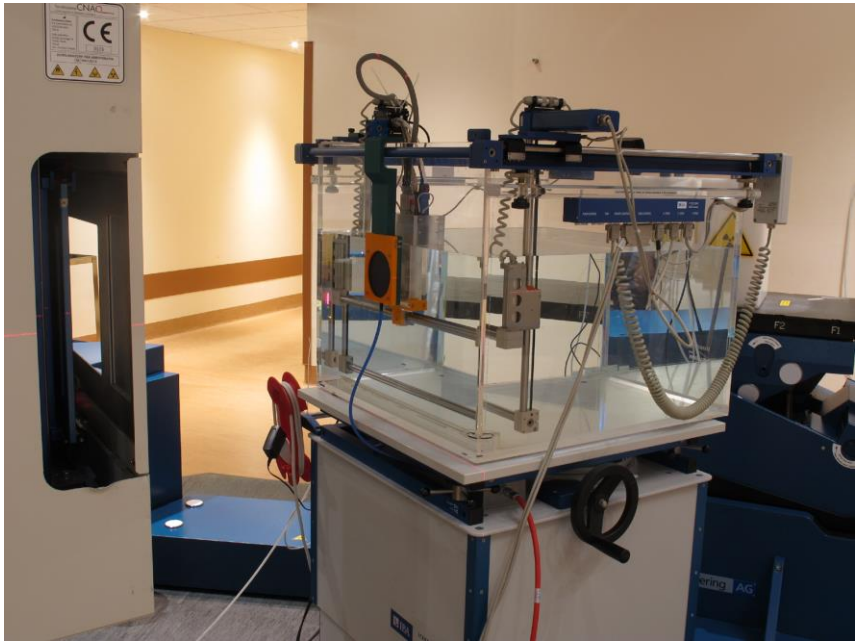
Plux Wireless Biosignals SA	(07.2010 – 05.2015) R&D Engineer
Knowledge Transfer – IP Dissemination	(06.2015 – 05.2017) Trainee
Knowledge Transfer – Medical Applications	(06.2017 – 03.2019) Fellow
Nestlé R&D	(04.2019 – Present) Contract Manager

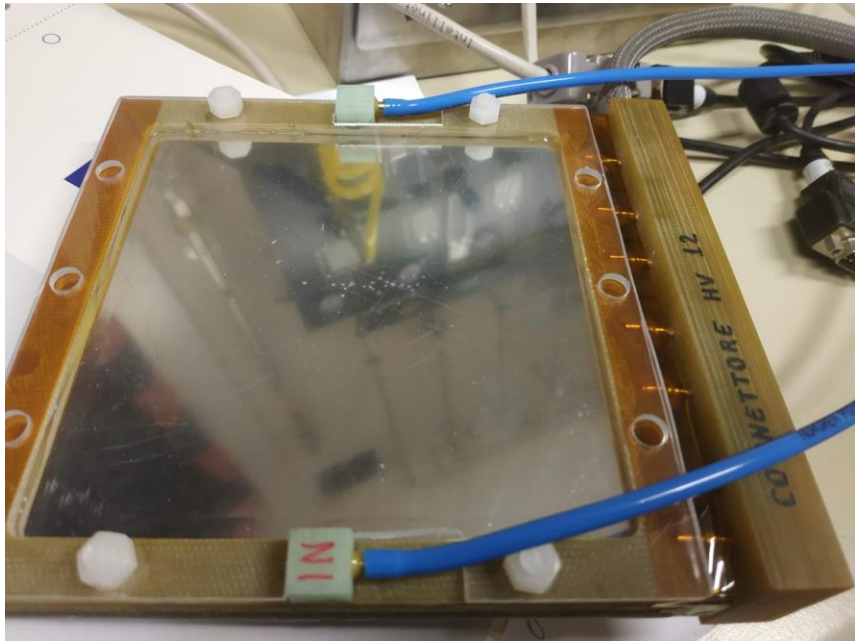
Cristina Pinho

Physics Teacher in High School Sebastião e Silva
CERN 2009 – Teacher Program in Portuguese
CERN – HST 2016

Gas Electron Multipliers (GEM's) + Pixelated Read-out

Organic photodiodes coated on an organic TFT backplane

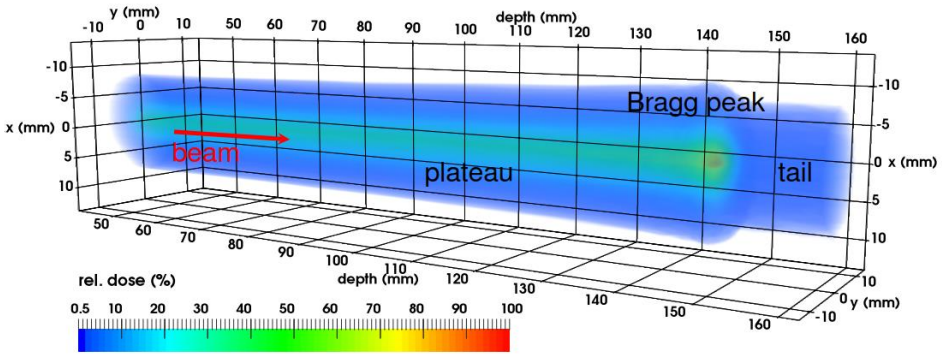




This project has received funding from the ATTRACT project funded by the EC under Grant Agreement 777222 and MAPF, CERN - KT.

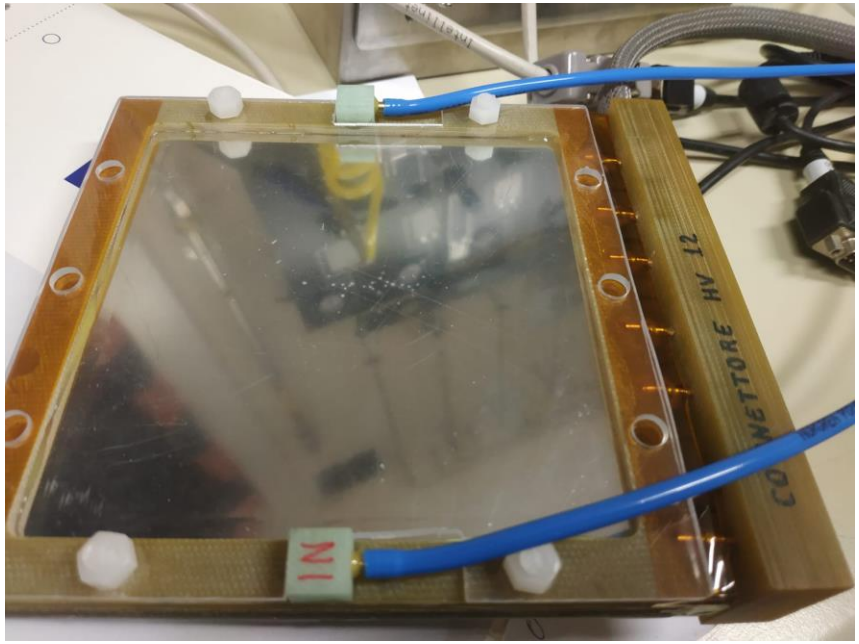
Gas Electron Multipliers (GEM's) + Pixelated Read-out

Organic photodiodes coated on an organic TFT backplane



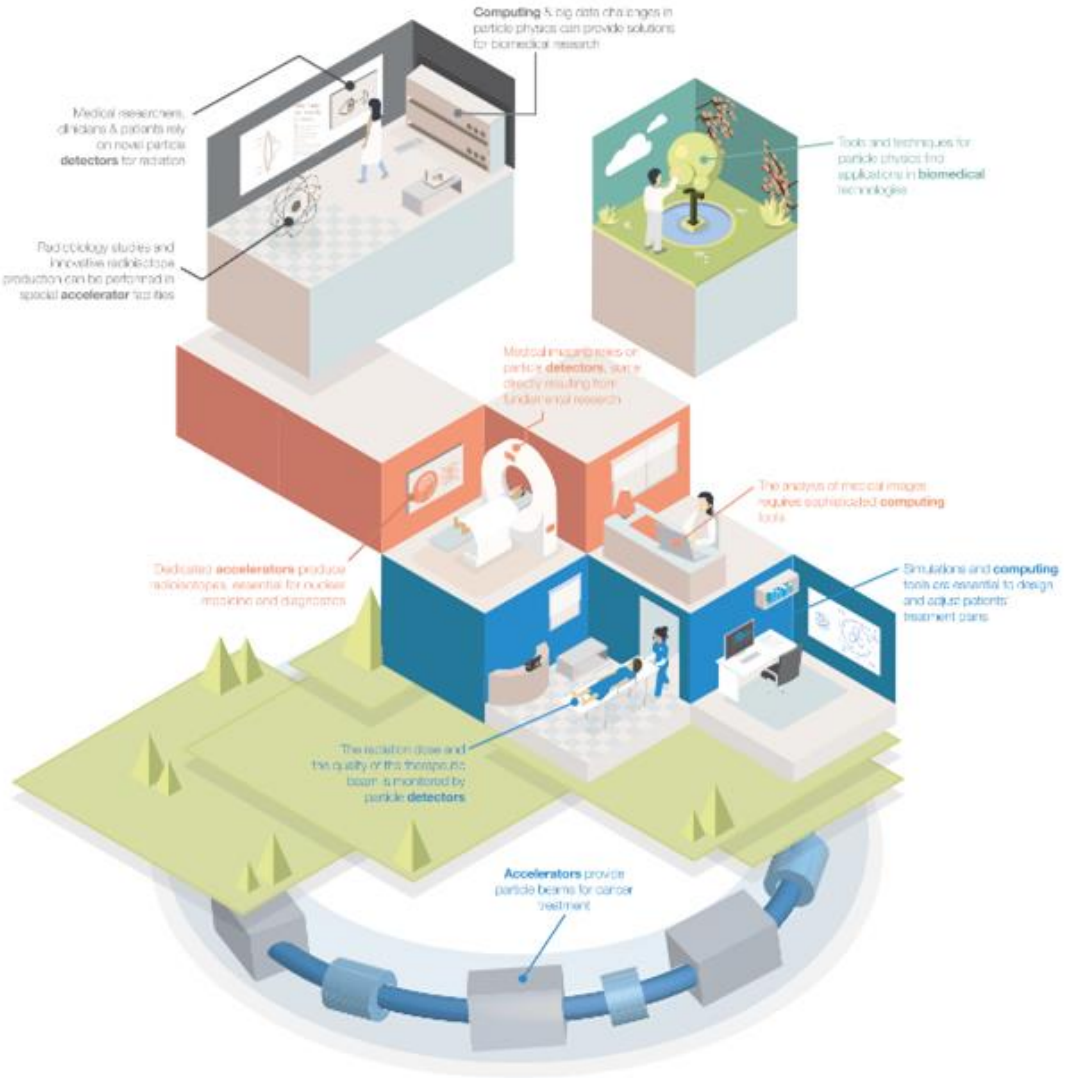
Hadron therapy

3D dose reconstruction of depth scan



This project has received funding from the ATTRACT project funded by the EC under Grant Agreement 777222 and MAPF, CERN - KT.

Medical and Biomedical Technologies

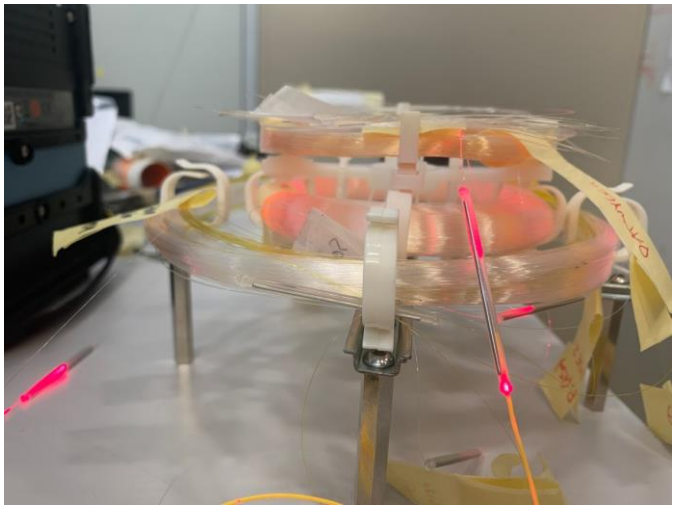


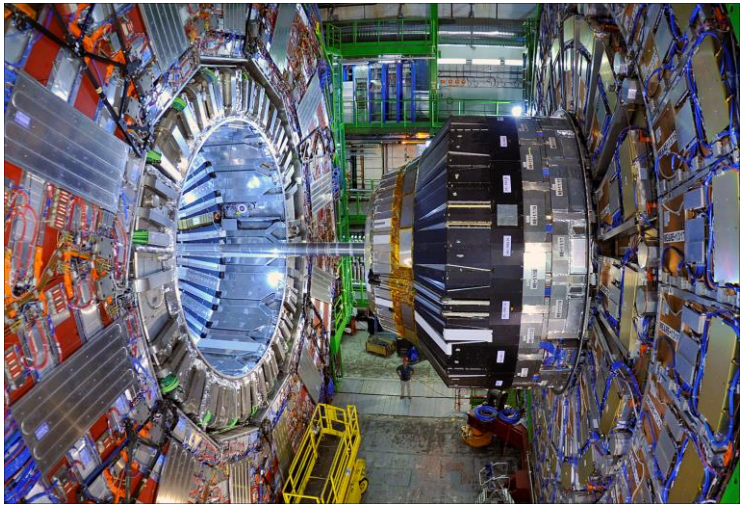
Medical and Biomedical Technologies

16 CERN technical experts
25 Teams registered from 14 countries
5 Teams selected
16k CHF Fundraising
Collaboration with
2 Health organization
1 Hospital
2 Medtech companies
3 Associations

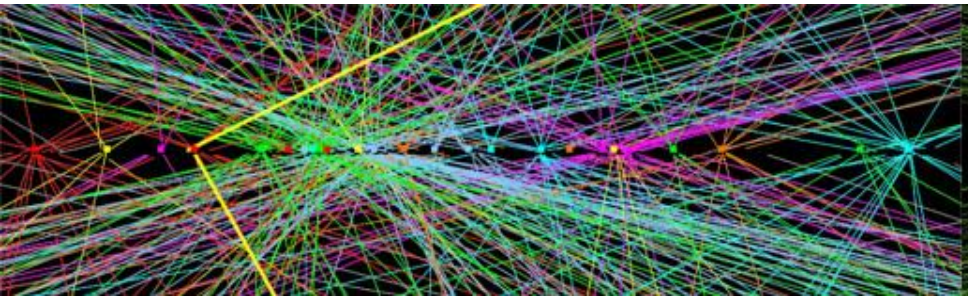
CERN Experience

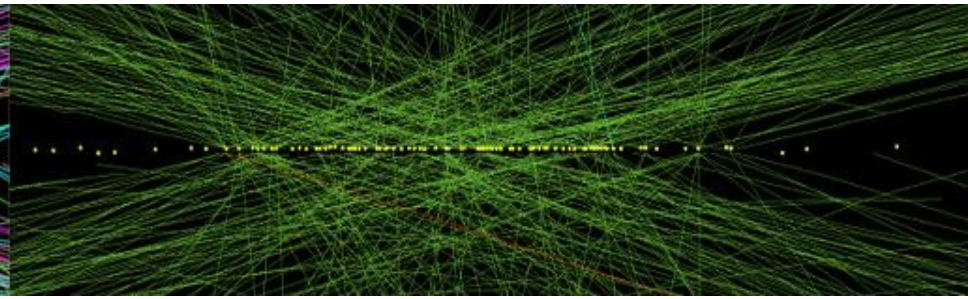
- Working in one of the **most complex devices** in the world
- Talented **multidisciplinary team**
- Large **connections network**
  - Universities and industries
- Creativity to create **new technology**
- Freedom to **focus the PhD on my personal taste**



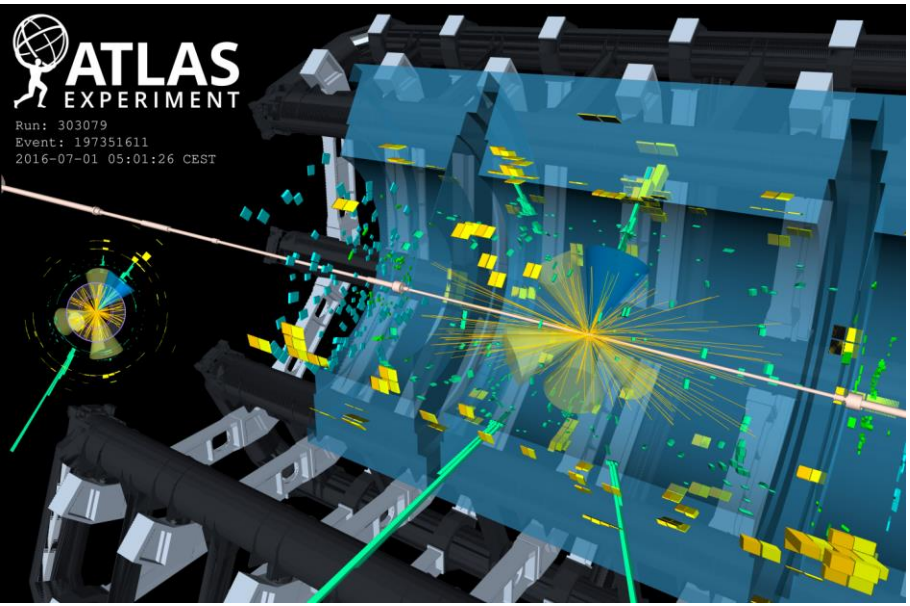


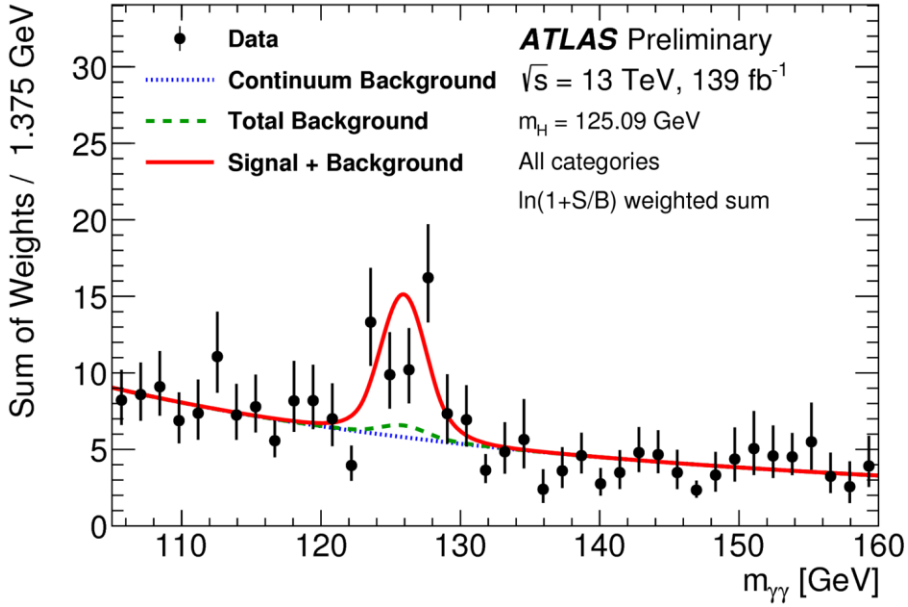
ATLAS upgrade





Physics analyses





CERN Opportunities

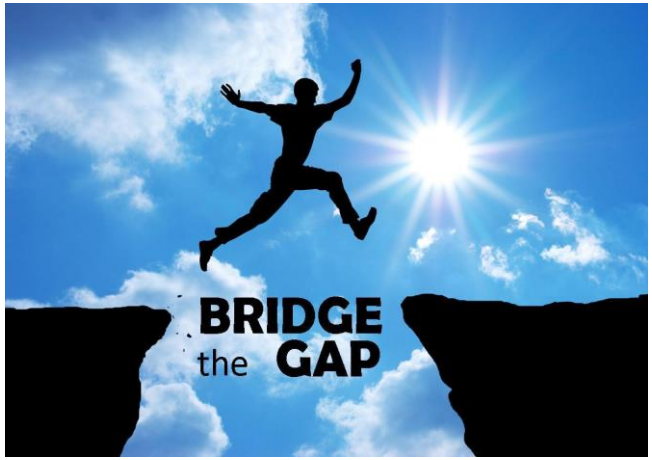
i) Unique place, unique people, unique technology, unique challenges.
ii) KT: legal IP, business development , technical background

CERN

Knowledge Transfer

- Electronics
- Radiation Detectors: GEM, Silicon
- Medical Applications

R&D



Industry

Scientific Contract Management

- Innovative Packaging: ex: biodegradability, recyclability, high barrier paper
- Health Sciences
- Nutrition
- Clinical Trial Research

The contribution of the CERN teachers program to my students , since 2009

- ✓ 8 - CERN study visits ~ 350 students
- ✓ MasterClasses every year ~ 200 students
- ✓ Virtual Visits - CMS - 5 Schools ~ 600 Students
- ✓ Particle Physics Lectures - approximation of schools to higher education.
- ✓ Ambient Radiation Project
- ✓ 2 Science Café at the Assembly of the Republic
- ✓ 2020 – S´Coolab and CERN …