RECFA visit to Turkey, Boğaziçi University, 6 October 2017

Graduate studies in HEP in Turkey

RECFA visit to Turkey

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Boğaziçi University

- Outline -

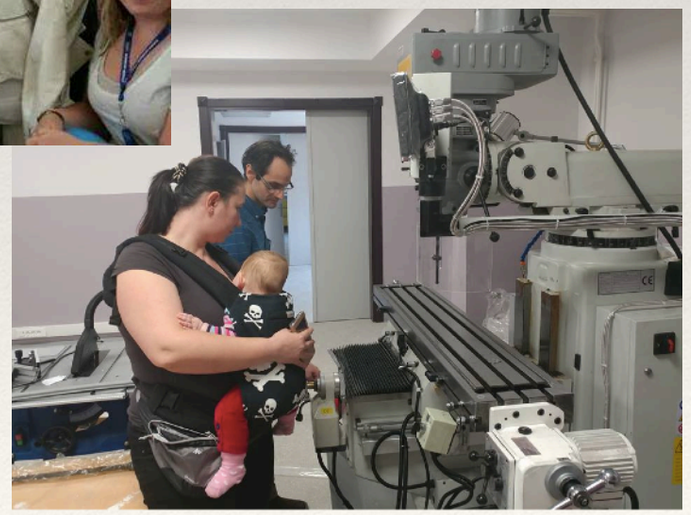
- Who is Saime?
- From undergraduate study to graduate study.
- Profile of graduate students in HEP
- CERN visits
- Some local studies
- Life after graduation
- Conclusion

Who is Saime?

- B.Sc. in Physics and Mathematics, Boğaziçi University 2009
- M.Sc. in Physics, Boğaziçi University, 2012.
- Ph.D. in Physics, Boğaziçi University, ongoing.
- Teaching Assistant in Boğaziçi University since 2009.
- Project Associate at CERN in 2014 for BL4S.
- Turkish Teachers Programme Turkey coordinator since 2015.
- Project member of DWC project funded by TUBITAK.
- Mother of a 1 year old :)







Graduate study in Turkey

Primary + Secondary	4+4+4
B.Sc.	4 years
M.Sc.	2 years
Ph.D.	4 years
Ph.D. without M.Sc.	5 years

University Entrance Examination
(YGS+LYS)
may change recently

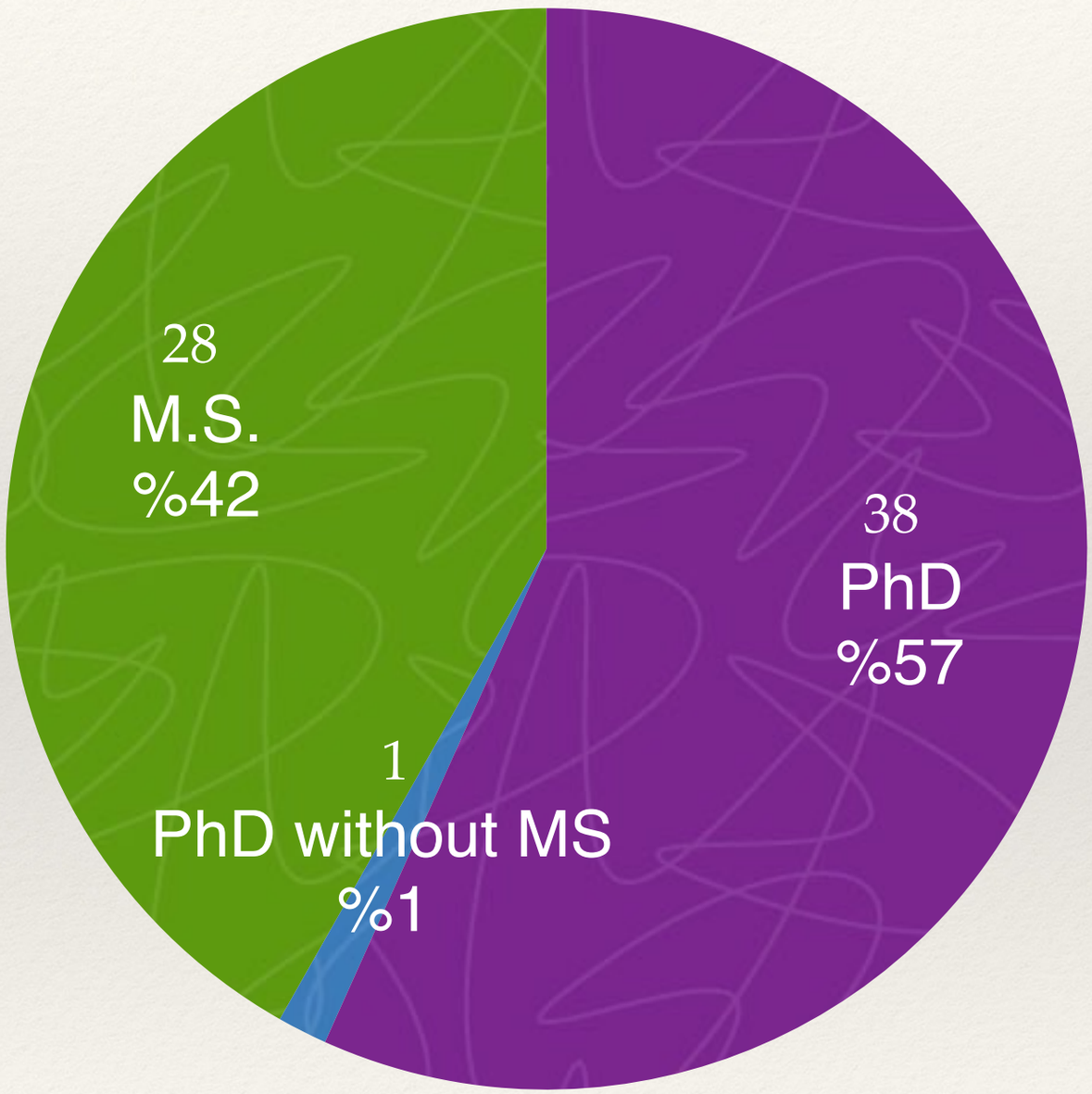
Terms from
Higher Educational Council (YOK)
+ Department exam

- M.Sc. education is like in Europe.
- Ph.D. education is like in the USA (courses, qualifier etc.).
- At the beginning of the graduate education, no income at all.
- During the graduate education, students find jobs as T.A.s or study at university-based projects.

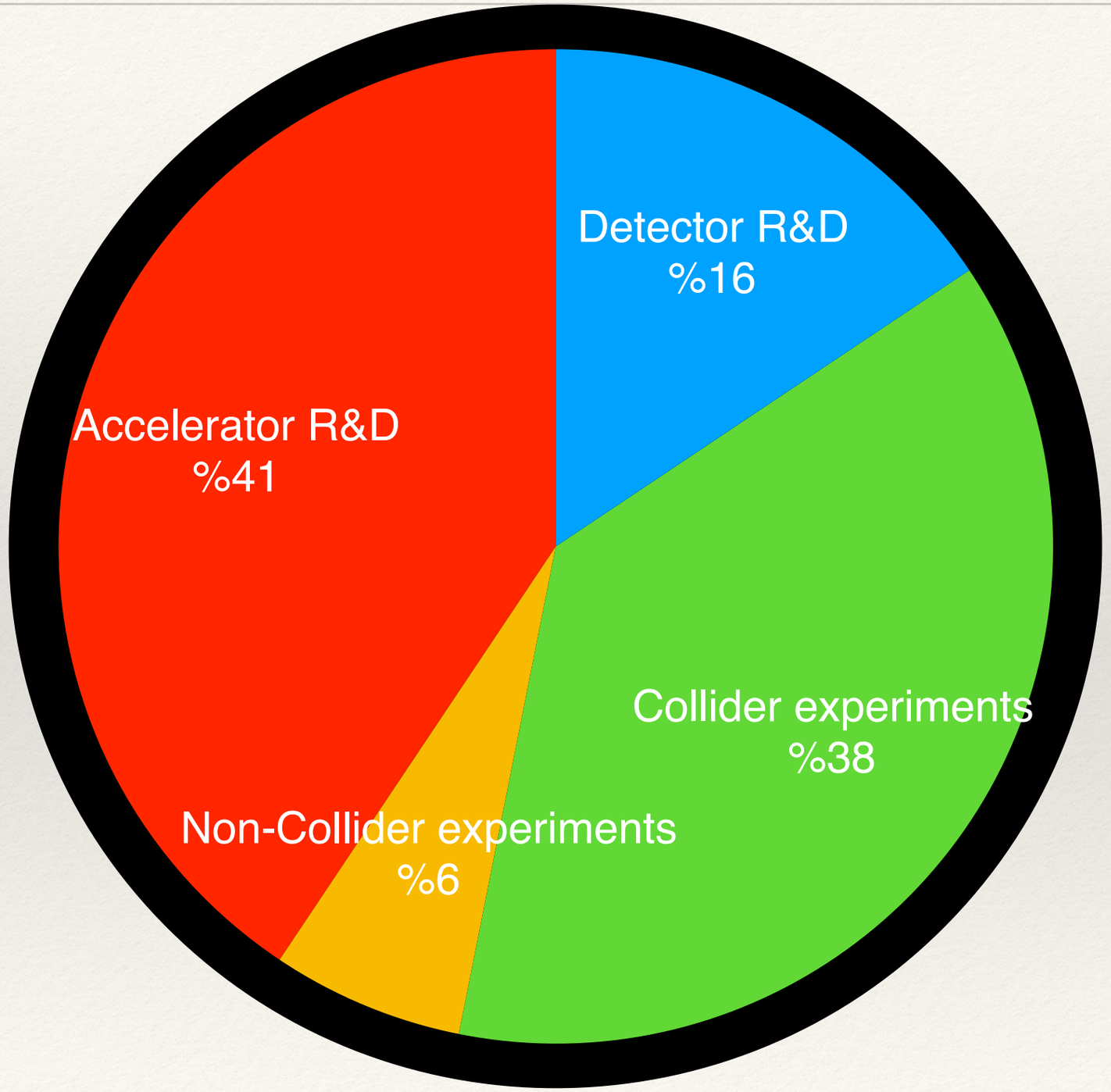
Graduate students in HEP in Turkey

- To understand the profile of the HEP students in Turkey, we performed a questionnaire among the students.
- Data on their graduate education, research topics and income sources were enquired.
- A total of 67 students attended.
  - We believe that this is to be a high level of participation. Predicted total number of students studying HEP is fewer than 100.

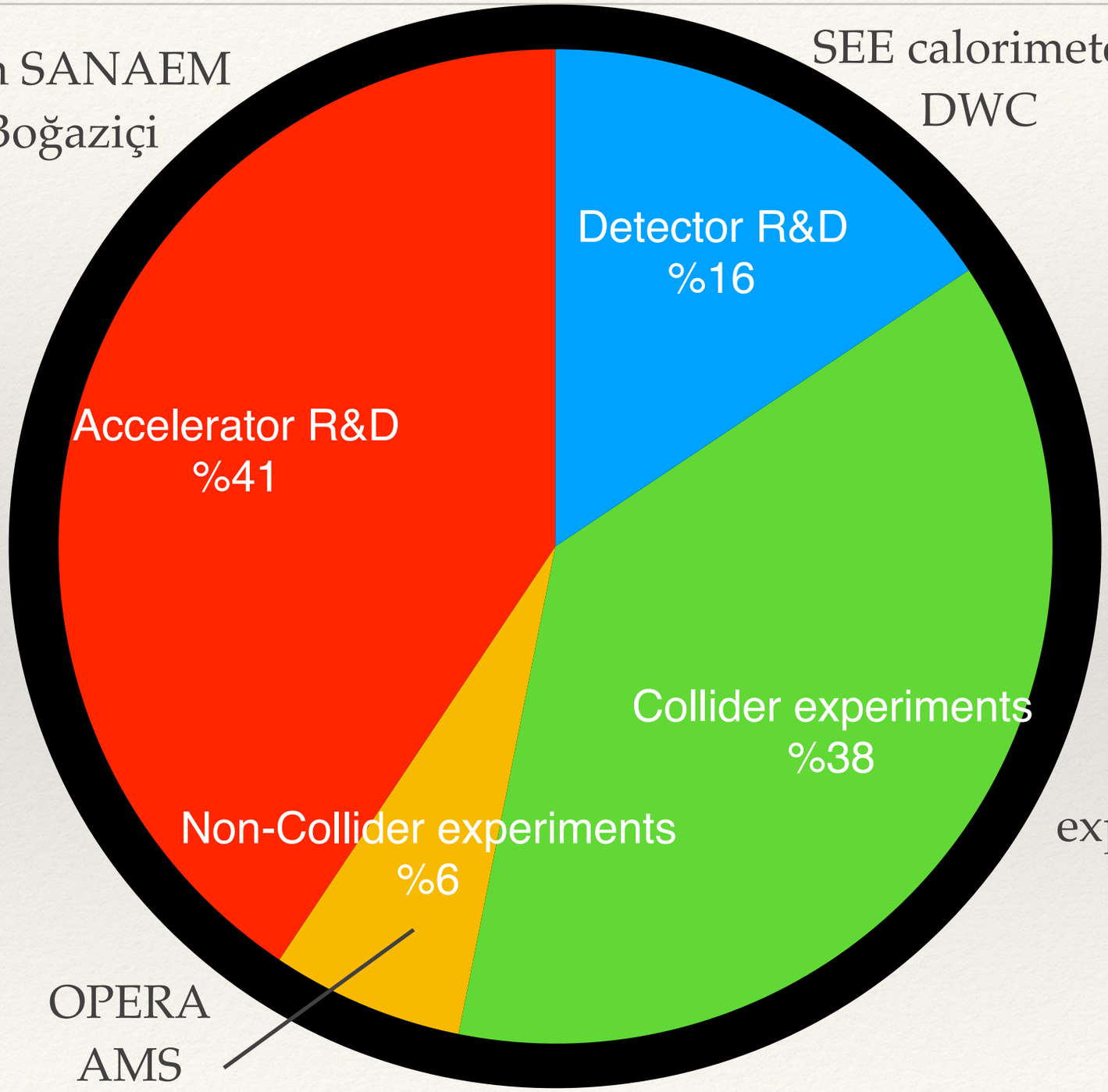
Current Status



Field of Study



Field of Study



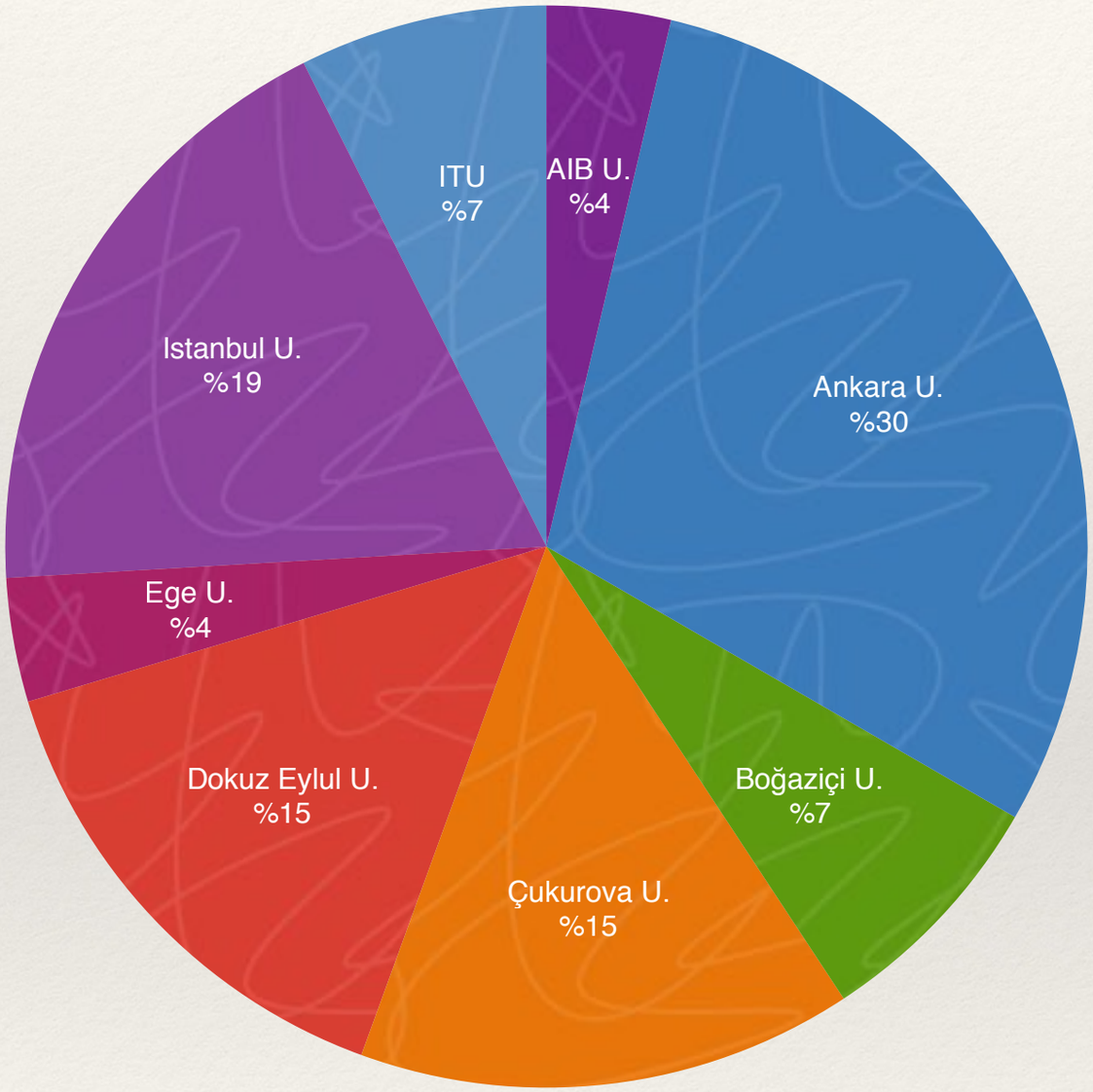
Proton accelerator in SANAEM
Electron gun in Boğaziçi

SEE calorimeter
DWC

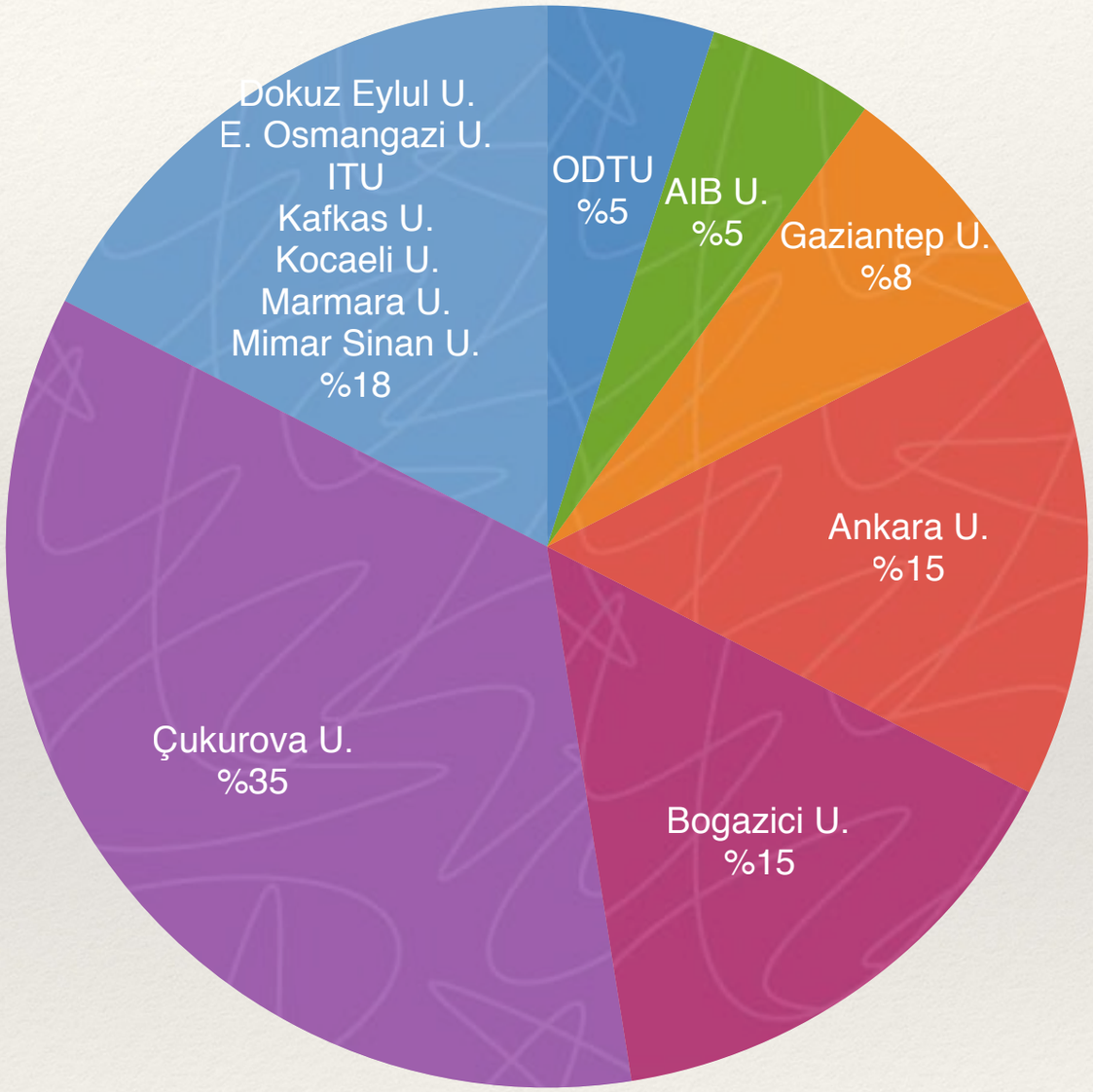
LHC
experiments

OPERA
AMS
CAST

Distributions of Universities

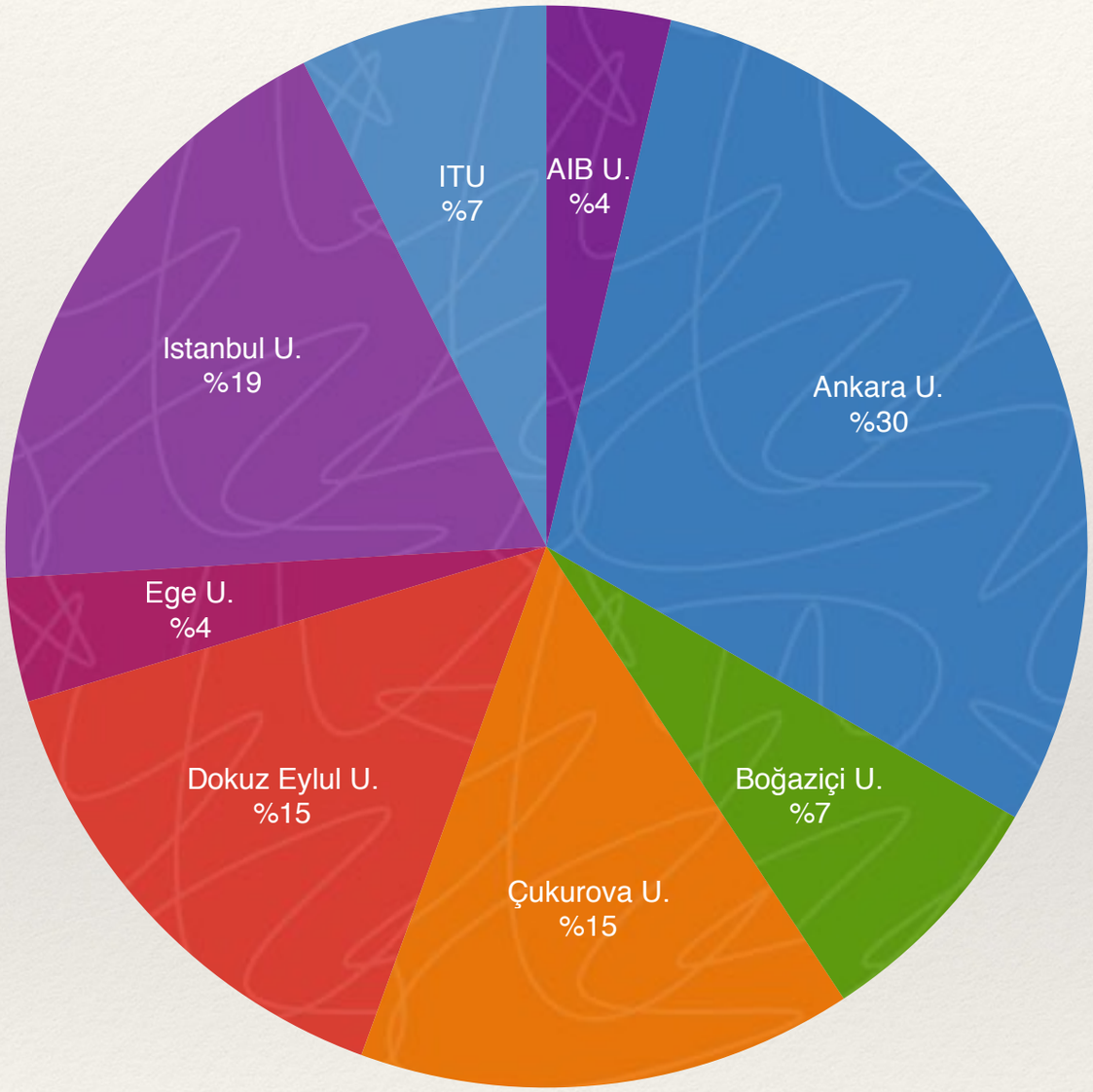


M.S. Distribution

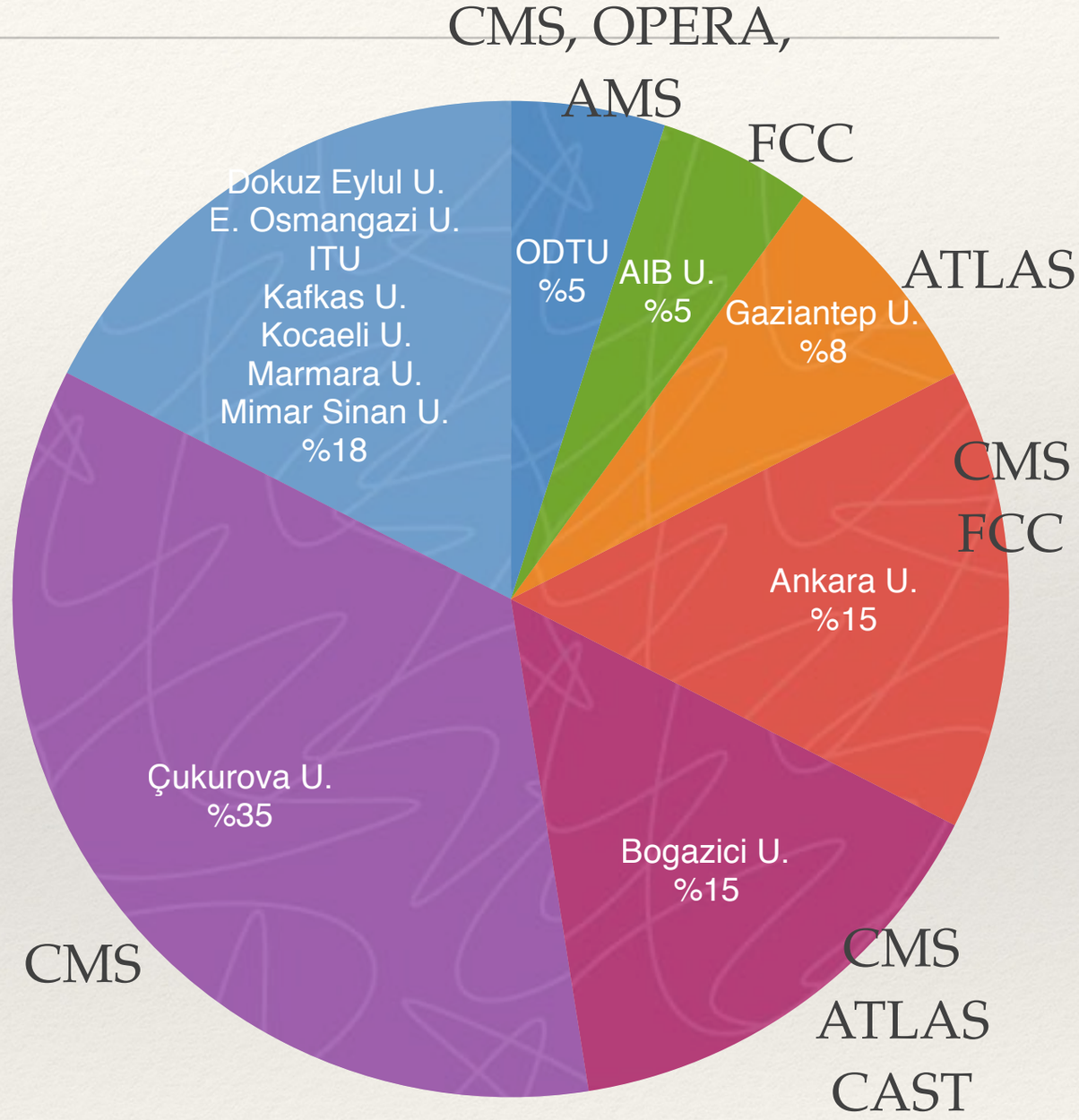


Ph.D. Distribution

Distributions of Universities

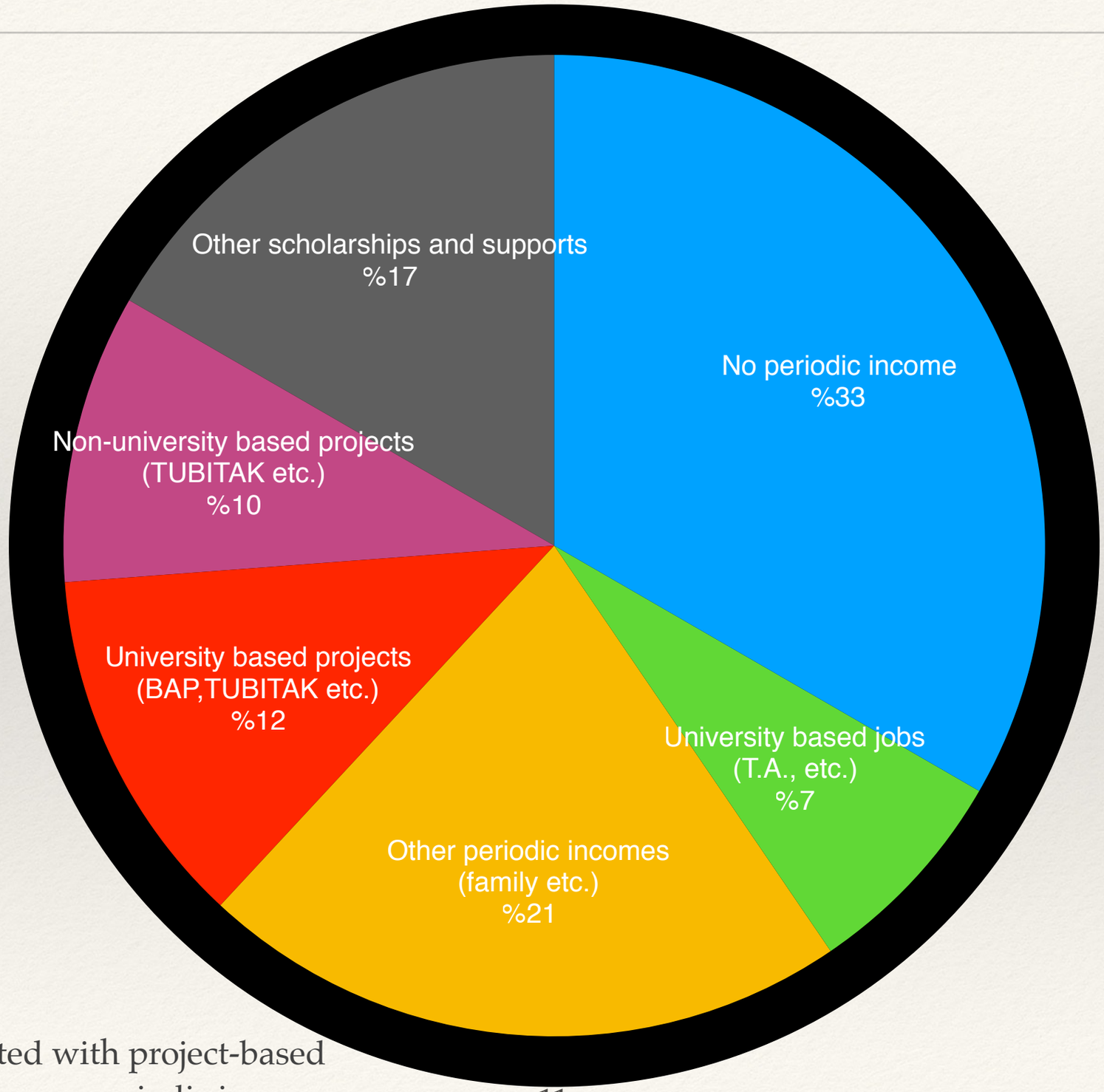


M.Sc. Distribution



Ph.D. Distribution

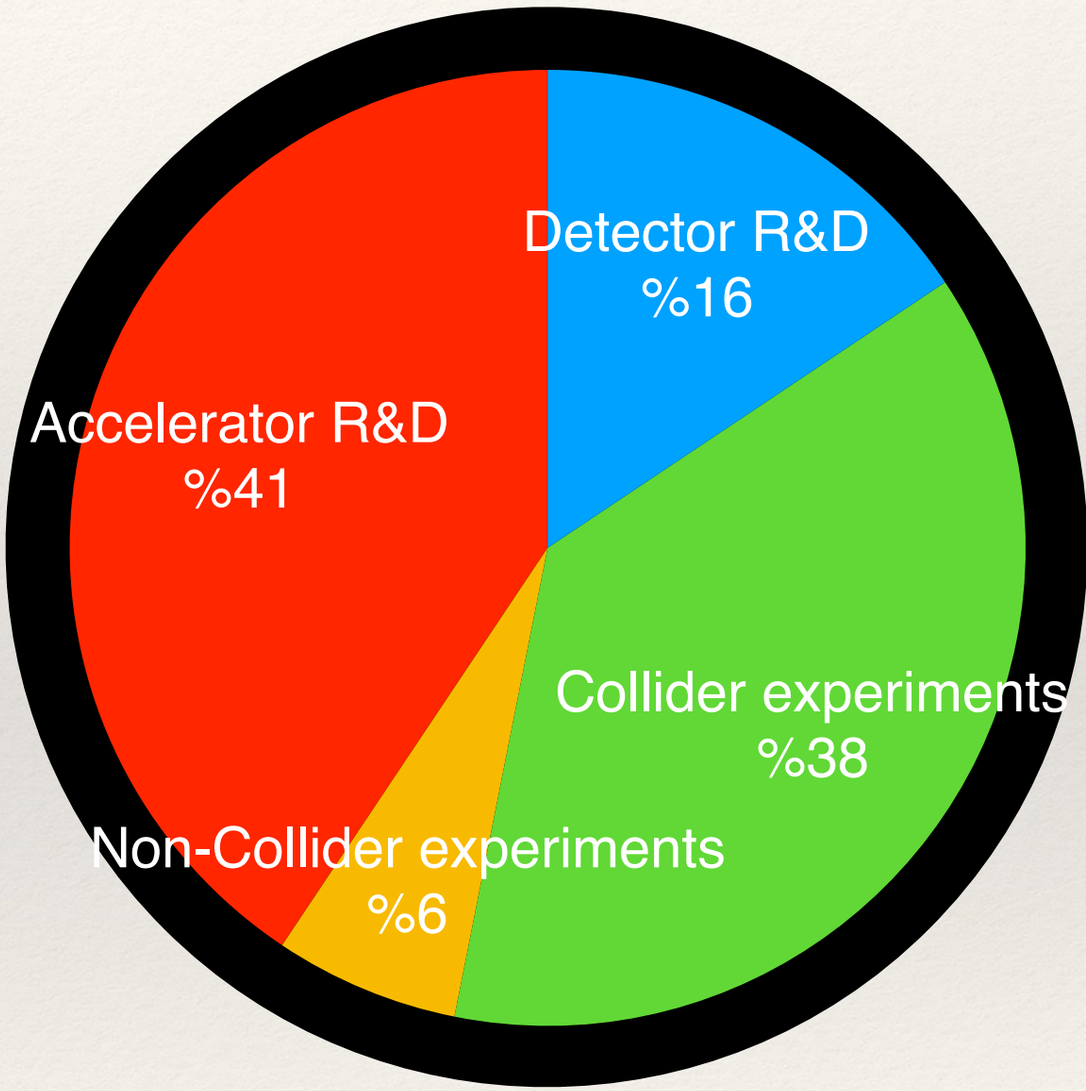
Income Sources



*Some students supported with project-based incomes see themselves as no periodic income.

CERN Visits

- Especially the students studying at LHC experiments need to visit CERN periodically.
- For these travels, TAEK provides financial support. But unfortunately, the amount is rather limited in covering the living expenses in France/Switzerland.
- A couple of students (per year) get the opportunity to go to CERN as technical student, Ph.D. student, Project Associate etc. We hope that this number will increase in the coming years.



Local Studies

- Last year, we organised an accelerator and detector physics workshop in İstanbul.
- Almost all the studies carried out in local labs in Turkey were presented.
- website: https://indico.cern.ch/event/489217/
- The website is in Turkish but some presentations are in English.



Example Research Subjects

- DWC chamber project in B.U. Kandilli Detector Accelerator and Instrumentation Lab (KAHVE LAB).
- Plans for producing plastic scintillators (Piri Reis U.) and a Cherenkov detector (Gazi Osman Paşa U.).
- SANAEM TAEK national proton accelerator project.
- “Demirci” RFQ design software

Graduate students have opportunity to study not only at CERN based experiments but also in local projects on detectors, accelerators, and software.



Life after Graduation

- Like most of the Ph.D.s around the world, we will be "unemployed" after graduation.
- There is no official post-doc or university researcher position in the Turkish university, but one can be employed as a post-doc in a project. Unfortunately, the income is frequently lower than what students receive during their Ph.Ds.
- Number of universities has recently been increasing in Turkey, and getting a tenure position is relatively easy at the new universities but getting a tenure position in a good university is difficult.
- Looking for positions abroad is an option taken by many.

Conclusion

- HEP students have opportunities to take part in both international and national studies.
- Life is hard! Getting a job or or a grant is harder!
- Visits to CERN represent a great opportunity for us.
- Students are willing to be at CERN so if we could have more opportunities, I believe, more students will be interested in graduate studies in HEP.
- National/local studies are growing in number and scope.

Thank you for your attention!

