

Education for HEP & CTU

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Overview

- ❁ Study programs relevant for students interested in HEP
- ❁ Research as a part of study
- ❁ How to attract good students
- ❁ Support for HEP students
- ❁ Link to outreach activities
- ❁ Students and graduates

Relevant study programs

Faculty of Nuclear Sciences and Physical Engineering

- ✿ Experimental nuclear and particle physics
- ✿ Mathematical physics
- ✿ Software engineering

Faculty of Information Technology – software development

Faculty of Mechanical Engineering – cooling technology

Core of the HEP program

- ✿ Experimental nuclear and particle physics
 - Bc. Program 3 years
 - MSc. Program 2 years
 - PhD. Program 4 years

Both theory and experimental topics in Heavy ion and High energy physics and detector physics and computing for HEP

Interconnection with teams from NPI (HI Physics), IP (HEP)

Research & study

- ❁ Starting from BSc. students link to experimental activity
- ❁ Internal grant agency of CTU (SGS) supports research performed by students – material, travel, stipend (main focus)
- ❁ Students are participating in other research and infrastructure grants dealing with HI&HEP
- ❁ Every year student conference focused on their research results
- ❁ Continual presentation of results on Seminars of Centre for Heavy Ion Physics

PhD Research

❁ Realized on several places

Faculty of Nuclear Sciences and Physical Engineering

Institute of Technical and Experimental Physics

❖ Technological aspects

Faculty of Mechanical Engineering

Experiments: ATLAS, ALICE, STAR, AEGIS, MOEDAL, Detectors etc.

Where to find good students

- ❁ Important issue!
- ❁ Public presentation for secondary schools (open days, Master Classes)
- ❁ Contact with interested students from very beginning
- ❁ Introduction to CERN and connected research activities (Hands on CERN)
- ❁ Excursion for selected students
- ❁ Support for participation in CERN summer student program

Stabilization of the team

- ❁ Cooperation between younger and older students and PhD students
- ❁ Research groups around senior scientists, postdocs, PhD. Students, MSc. Bc. Students in permanent contact
- ❁ Continual communication and discussion with other research groups and teams at CTU and partner institutes
- ❁ Coherent environment, no barriers

Graduates & students

- ✿ Since 2007
- ✿ 10 PhD, 18 MSc., 5 left only after Bc.
- ✿ Current students
- ✿ 18 Bc. Students
- ✿ 15 MSc. Students
- ✿ 26 PhD. Students

Pedagogical and research staff

- ✿ 2 professors
- ✿ 3 docents
- ✿ 8 assistants
- ✿ 6 postdocs
- ✿ 4 support
- ✿ and colleagues from institutes

Summary

- ❁ During the last 7 years CTU enforced the support of HI and HEP study program and research
- ❁ Stabilized team of staff members and postdocs active in experiment, theory and technical aspects of experiments – educates students at all levels
- ❁ We are trying to engage more faculties in cooperation with CERN – in technical aspects relevant for them
- ❁ CTU is one of the focal points of the HEP & HI physics in Czech Republic.