

Public Outreach to highschool students

Miriam Kümmel

Ruhr-Universität Bochum
Institut für Experimentalphysik I

\bar{P} ANDA-Collaboration Meeting 18/2
June 2018

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Netzwerk Teilchenwelt

- Informing the public by building a network between scientists, high school students (15-19 years old) and project leaders to teach current research (methods and results) about particle physics at CERN
- Improve understanding and acceptance of current research methods and results in the public
- Students gather authentic experiences with experimental data, deepen their enthusiasm for science

→ Rear the next generation of young scientists

6000/a Attend a hands on masterclasses

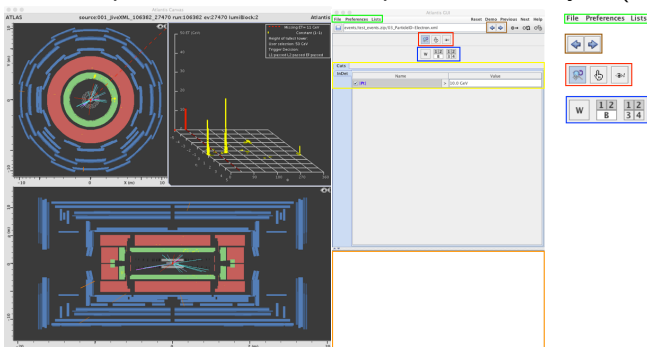
100/a Actively participate at a masterclass (tutor)

100/a 2-day workshop or 1-week project at CERN

10/a Assist at research institutes

Hands on masterclasses

- Young scientists go to a school and give an introductory talk
- Or a group of students comes to a location (museum, ...)
- Students use event display to look into real CERN data
- Follow guidelines to analyse the data, answer a question:
 - Understand content of the proton by counting W -decays in proton-proton collisions measured by ATLAS
- More experienced students help with the analysis (tutor level)



Ideas for a $\overline{\text{PAND}}\text{A}$ masterclass

- Mustafa Schmidt: Just finished Ph.D. on Disc DIRC, engaged at Netzwerk Teilchenwelt masterclasses
- Study $f_0(1500) \rightarrow \pi^+\pi^-, K^+K^-$ and compare branching fraction with prediction for a glueball hypothesis
- Simplified event display with DIRC and tracking detectors
- Compare hit patterns in the Disc DIRC to decide the particles identity by hand
- Your support is welcome!
- Please also engage in developing own ideas with your physics topics and subdetectors!

Questions? Comments?