



Contribution ID: 34

Type: **Talk**

LHC Open data in the Open Science programme

The Czech Academy of Sciences project entitled Open Science offers one-year internships for selected secondary school students. It announces many topics from different scientific fields. For already several years we use this programme to attract students to study physics. In a small group consisting of one to three students they learn basics of the high energy physics. Virtual visits of the ATLAS LHC experiment via Oculus Rift help them to imagine the size of current LHC detectors. They learn about distributed data processing and contribute to simulations using LHC@Home on the BOINC platform. The main part of the internship is focused on examples of data analyses. ATLAS and CMS experiments publish part of the full LHC datasets in the simplified form with examples how to process them. Interactive histograms demonstrate principles of a signal selection. More complicated algorithms are implemented via Jupyter notebooks. Students also learn how to work with git and how to collaborate on the code development. They present results on the Scientific Fair attracting more than 10000 visitors and on the final student conference.

Is this abstract from experiment?

No

Name of experiment and experimental site

LHC experiments

Is the speaker for that presentation defined?

Yes

Details

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Internet talk

No

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