

Teaching with open research data: experiences from five years of exploration-driven lab exercises in subatomic physics for undergraduate students

Wednesday 15 June 2022 13:15 (30 minutes)

Over the past five years we have guided over 400 undergraduate university students to quite independently finding and measuring properties of subatomic particles in real research data from the ATLAS experiment at CERN. I will discuss our experiences with designing lab exercises using real research data, technical challenges and how we solved them, the gradual improvements we implemented from year to year, as well as some personal reflections on perceived pedagogical benefits from learning via curiosity-driven exploration. The presentation may also include a live demonstration and quick guide to how the computer lab is set up, and/or some indications of how well these types of labs work for high school students.

Author: OHM, Christian (KTH Royal Institute of Technology (SE))

Presenter: OHM, Christian (KTH Royal Institute of Technology (SE))

Session Classification: Undervisningssektionen (Physics Education Research)

Track Classification: Parallel session: Undervisningssektionen (Physics Education Research)