

GIREP-EPEC conference 2023 Physics learning promoting culture and addressing societal issues

Contribution ID: 209

Type: Invited talk

The importance of laboratory instruction in the physics curriculum

Tuesday 4 July 2023 09:00 (1 hour)

Laboratory instruction in physics is often justified with the claim "physics is an experimental subject." While this claim is certainly true, we can make much better and-one hopes-more convincing arguments for laboratory instruction in physics. This discussion is particularly important for many reasons. Among the reasons is that students are often unclear on why they have to spend time in the lab and thus feel the time would be more optimally used doing other course activities. A convincing argument for why we include "labs" in our curriculum could be helpful in obtaining student buy-in. Another reason is that there is little hard evidence that laboratory work helps students understand the subject, at least to the extent that end-of-term exams measure understanding. Finally, in many educational institutions, labs are under budgetary pressure since they often require a larger investment in both equipment and time. In this talk, I will give my views on why hands-on experience in the lab is important and how laboratory work can be tuned to give students meaningful educational experiences in the laboratory.

How would you like to present your contribution?

Live in Košice (time slot to be allotted based on the programme)

Target education level (primary)

Upper-secondary education

Target education level (secondary, optional)

Lower-secondary education

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