



GIREP-EPEC
3-7 July 2023
Košice, Slovakia

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

Contribution ID: 87

Type: **Oral presentation**

Teaching Scientific Practices Through Low-Cost Tools: An Experiment with High School Students

Monday 3 July 2023 14:20 (20 minutes)

A Teaching-Learning Sequence, designed to promote scientific practices in high school students, is presented. The TLS included laboratory experiences on linear motion using low-cost tools, as Arduino, which were easy to replicate in other schools. The focus was on the process of laboratory work, the use of different representations and the development of arguments based on evidence. Collaborative working methods were used; the TLS was modified to fit the teaching method of the teachers involved. The TLS was tested in three classes and replicated in two more. Preliminary results suggest that the TLS helped students to achieve the intended goals.

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)

Primary author: GABELLI, Lucia (University of Padova)

Co-authors: Mr LISSANDRON, Giorgio (Liceo scientifico A. Cornaro); Mrs PANTANO, Ornella (University of Padova)

Presenter: GABELLI, Lucia (University of Padova)

Session Classification: Hybrid session - later

Track Classification: Innovative strategies and pathways to improve physics education at school