



Contribution ID: 275

Type: **Oral presentations**

Absolute zero: An upper-secondary acoustic levitation lab

Thursday 29 August 2024 10:50 (20 minutes)

The concept of sound waves is central to our everyday experience and part of upper-secondary school physics. Acoustic levitation represents an application of standing-wave phenomena, which has seen a surge in popularity due to the introduction of cost-effective ultrasonic speakers. However, acoustic levitation by affordable speakers remains absent from most upper-secondary physics education. Therefore, we developed LeviLab; a low-cost, user-friendly, and easily reproducible acoustic levitation experiment to measure the wavelength and speed of sound. This study proposes using LeviLab to integrate acoustic levitation into the classroom setting to measure absolute zero.

How would you like to present your contribution?

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

Target education level

Secondary

Category

Formal Education

Author: JOHANSSON, Andreas (Department of Physics, University of Gothenburg)

Co-authors: KILDE LÖFGREN, Sebastian (Department of Physics, University of Gothenburg); Dr ENGER, Jonas (Department of Physics, University of Gothenburg)

Presenter: JOHANSSON, Andreas (Department of Physics, University of Gothenburg)

Session Classification: Oral presentations

Track Classification: Experiments and Practical Work in Physics Education