



Contribution ID: 64

Type: **Oral presentation**

Measuring the effectiveness of motion simulation programs in high school physics education

Tuesday, 4 July 2023 11:00 (20 minutes)

Motion simulation programs can be key components in learning mechanics due to their sandbox approach and intuitive use. In our research we focus on examining, whether students who use a motion simulation program while learning mechanics learn the curriculum more effectively. To measure this, we conducted an experiment that involved 700 students. The data shows, that the students who learned dynamics with the help of motion simulation software mastered the course material better than those who learned it in a traditional way. We also proved that this effect is especially significant for students from weaker and medium-strength schools.

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: RADNAI, Tamás (Jedlik Ányos Secondary School)

Co-authors: JUHÁSZ, András (Eötvös Loránd University); JENEI, Péter (Eötvös Loránd University); TÓTHNÉ JUHÁSZ, Tünde (Karinthy Frigyes Secondary School)

Presenter: RADNAI, Tamás (Jedlik Ányos Secondary School)

Session Classification: Innovative strategies at school

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