GIREP-EPEC
Transforming physics learning via Research & Practice
LEIDEN, 2025

Contribution ID: **208** Type: **Oral presentation**

Exploring the Potential of Interactive e-Books for Enhancing Learning and Teaching in Physics and Astronomy

Friday 4 July 2025 13:20 (20 minutes)

This study focuses on investigating how undergraduate physics and astronomy students engage with interactive e-books, which I designed to support active learning and digital accessibility for two courses I lecture in the School of Physics and Astronomy at my institution. These e-books integrate simulations, videos, code, and interactive assessments, embedded all in one place, offering an accessible and structured alternative to traditional static materials. This research evaluates student usage, preferences, and perceived educational value of these e-books, assessing their effectiveness in digital learning through a survey, identifying strengths, limitations, and areas for improvement.

Education level

All ages

Physics topic

Full curriculum

Research focus

Digital technologies (multimedia, simulations, AR, VR, remote, games)

Research method

Mixed method (qualitative & quantitative)

Organizing preference criteria

Author: LENA, Rosaria

Presenter: LENA, Rosaria

Session Classification: Parallel oral presentations

Track Classification: Digital technologies (DIGI)