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

Contribution ID: **82** Type: **Oral presentation**

Why should high-school students learn Quantum Physics? Various stakeholders' perspectives

Tuesday 1 July 2025 09:00 (20 minutes)

Teaching quantum physics (QP) in high school (HS) has become common globally, yet the reasons for including it vary among stakeholders. This study explores the justifications provided by physics education researchers, university-level physicists, and HS teachers, analyzing responses from 54 participants using content analysis. Findings reveal key themes for teaching QP: gaining knowledge, inculturation, and inspiration. Quantum technology (QT) emerged as the dominant justification across all professional groups. These insights provide guidance for curriculum design, aligning diverse perspectives on why QP should be part of HS education.

Education level

Age 12-15 (Secondary education)

Physics topic

Quantum mechanics

Research focus

Other

Research method

Mixed method (qualitative & quantitative)

Organizing preference criteria

Track

Authors: Dr MERZEL, Avraham (The Hebrew University of Jerusalem); POL, Henk

Presenter: Dr MERZEL, Avraham (The Hebrew University of Jerusalem)

Session Classification: Parallel oral presentations

Track Classification: Quantum education (QUANT)