

Contribution ID: 87 Type: Oral presentation

Roles of mathematics in physics education: a systematic review

Monday 30 June 2025 14:10 (20 minutes)

Mathematics plays many roles in physics and physics education. Although these roles have previously been widely discussed in the physics education research community, no systematic picture of the multifaceted considerations has yet been formed. To gain a comprehensive overview of the existing studies on this topic, we have conducted a systematic literature review. In this presentation, we will outline the employed review and analysis methods and discuss our findings along with their implications.

Education level

All ages

Physics topic

Full curriculum

Research focus

Other

Research method

Mixed method (qualitative & quantitative)

Organizing preference criteria

Track

Author: PALMGREN, Elina

Co-authors: BRUUN, Jesper (University of Copenhagen, Department of Science Education); Dr KOKKONEN,

Tommi (University of Turku)

Presenter: PALMGREN, Elina

Session Classification: Parallel oral presentations

Track Classification: Interplay of mathematics and physics (MATH)