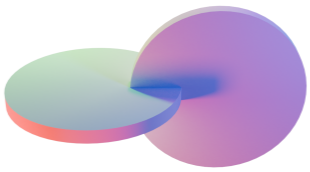

GIREP-EPEC
Transforming physics learning via Research & Practice
LEIDEN, 2025

Contribution ID: **59** Type: **Oral presentation**

In-service science teachers' adaptation of integrated STEM teaching modules on Climate Change

Thursday 3 July 2025 15:30 (20 minutes)

This study explores the adaptation and implementation of STEM teaching modules on climate change by 27 in-service science teachers. Supported by experienced mentors in learning communities, participants engaged in designing and implementing tailored STEM teaching modules to foster climate change education. Teachers adapted pre-existing materials by redesigning activities to align with their teaching styles, students' needs, and school contexts. Data analysis revealed extensive adaptations, guided by mentors, ensuring fidelity to the interdisciplinary STEM approach. These findings highlight the transformative potential of collaborative, mentored professional development in promoting sustainable educational innovations.

Education level

Pre-service and in-service teacher education

Physics topic

Climate physics

Research focus

Competence-based education

Research method

Innovative research strategies (Try-out) (Qualitative research)

Organizing preference criteria

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Presenter: MICHAILIDI, Emily (University of Crete)

Session Classification: Parallel oral presentations

Track Classification: Climate physics (CLIM)