

Session Program

30 June 2025 to 4 July 2025



GIREP-EPEC

Transforming physics learning via Research & Practice
LEIDEN, 2025

GIREP-EPEC 2025 Conference, Leiden, The Netherlands

Parallel oral presentations TEACH

Leiden University, Gorlaeus building
Einsteinweg 55 2333 CC Leiden <https://www.universiteitleiden.nl/en/locations/gorlaeus-building#tab-1>

Monday 30 June

13:30

Parallel oral presentations TEACH: Parallel oral presentations 113 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Iain Moore

13:30-13:50

How do pre-service physics teachers envision physicists?

Speaker

Angelika Bernsteiner

13:50-14:10

Advanced physics courses for teachers - Physicists' perceptions

Speaker

Dr Dan Klein

14:10-14:30

Supporting Teachers in Planning and Implementing Digital Data Acquisition in the Physics Classroom

Speaker

Lea Runge

14:30-14:50

The introduction of circuits in secondary science education: teachers' views on confidence and content

Speaker

Iain Moore

15:00

Tuesday 1 July

09:00

Parallel oral presentations TEACH: Parallel oral presentations 212 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Marian Kires

09:20–09:40

Artificial Intelligence in Pre-Service STEM Teacher Training

Speaker

Prof. Jozef Hanč

09:40–10:00

Teacher students' expression of TPACK in GeoGebra-based lesson planning

Speaker

Lorena Solvang

10:00–10:20

Flexible learning environment for the DigCompEdu competences development of STEM teachers

Speaker

Marian Kires

10:30

15:30

Parallel oral presentations TEACH: Parallel oral presentations 221 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Stephen Gammell

15:30–15:50

Diagnosis of Elementary Pre-service Teachers' Alternative Conceptions before and after Hands-on Laboratory about Electrostatic

Speaker

Abdeljalil Metioui

15:50–16:10

Exploring the Traits of Competent Physics Teachers: Insights from Secondary School Physics Teachers

Speaker

Deena Davis

16:10–16:30

Examining Ethiopian Physics Teachers' Conceptual Understanding and Pedagogical Content Knowledge in Mechanics

Speaker

Dereje Aynekulu Dejene

16:30–16:50

Influence of a professional learning programme in physics on teachers' beliefs and classroom practices

Speaker

Stephen Gammell

17:00

Wednesday 2 July

09:00

Parallel oral presentations TEACH: Parallel oral presentations 312 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Estelle Tison

09:00–09:20

Exploring the Photoelectric Effect and the Electromagnetic Spectrum through Art Analysis in Physics Education

Speaker

Ms Brenda Ixcuiname Saavedra

09:20–09:40

Effectiveness of Peer Mentoring for Helping College Physics Faculty Members Improve Their Teaching in Japan

Speaker

Sachiko Tosa

09:40–10:00

Preschool teacher training in physics under the new Mexican school approach

Speaker

Dr Mario Humberto Ramírez Díaz

10:00–10:20

The Meaning of Energy in Physics Teaching in France (grades 7 to 9): an Analysis of Official Documents.

Speaker

Estelle Tison

10:30

Thursday 3 July

09:00

Parallel oral presentations TEACH: Parallel oral presentations 411 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Olga Gkioka

09:00–09:20

Developing Student Competences for Sustainable Development: Are Teachers Prepared

Speaker

Dr Dury Bayram

09:20–09:40

E-R-R teaching framework implemented in future physics teacher education

Speaker

Tereza Hrouzková

09:40–10:00

How do Different Games make a Difference? Pedagogical Considerations and Teachers' Perspectives when integrating Card Games into Physics Teaching

Speaker

Smadar Levy

10:00–10:20

Pre-service physics teachers learn to write reports in the instructional physics labs

Speaker

Olga Gkioka

10:30

15:30

Parallel oral presentations TEACH: Parallel oral presentations 421 TEACH

Session | **Location:** Gorlaeus building, BM1.33, Einsteinweg 55 2333 CC Leiden | **Convener:** Dr Eilish McLoughlin

15:30–15:50

Coherent Argumentation in Pre-Service Science Teachers' Computational Essays

Speaker

Peitsa Veteli

15:50–16:10

Exploring Preservice Physics Teachers' Reasoning of Measurement Uncertainty

Speaker

Osman Aksit

16:10–16:30

Empowering future physics teachers to cultivate critical thinking

Speaker

Dr Farahnaz Sadidi

16:30–16:50

An examination of physics teachers' reflective practices

17:00

Speaker

Dr Eilish McLoughlin

Friday 4 July

13:00

Parallel oral presentations TEACH: Parallel oral presentations 521 TEACH

Session | **Location:** Gorlaeus building, CM1.26, Einsteinweg 55 2333 CC Leiden | **Convener:** Valentina Bologna

13:00-13:20

An Evaluation of Argumentation-Based Studies on Physics Subjects Using the Toulmin Model

Speaker

Ms Aysegul Tuysuz

13:20-13:40

Characterising Dialogues in Upper-Secondary School Physics Classrooms

Speaker

Patrick Diepenbroek

13:40-14:00

Towards a theory of thinking and reasoning in physics education: the connection between dual processing theories and mental models

Speaker

David Sands

14:00-14:20

Examining Thinking Order Levels in Non-Traditional vs. Standard Physics Problems Through Revised Bloom's Taxonomy

Speakers

Giovanna MODUGNO, Valentina BOLOGNA

14:30