

OCPA10 2026 Physics Education Schedule & Timetable

Day 1 (Monday 22 June)

PE1 | Physics Education | Room 304

Chair: Lei Bao

Time	Speaker	Presentation Title
1:30–2:00	Fang Lu	Digital Intelligence Driving Classroom Revolution In Physics Education – A Case Study of the Blended “Semiconductor Physics” Course
2:00–2:30	Lei Bao	Promoting Deep Learning in Physics with the Conceptual Framework Model of Knowledge Integration
2:30–3:00	Shihong Ma	THE DEVELOPMENT OF PHYSICS EDUCATION RESEARCH IN FUDAN UNIVERSITY
3:00–3:30	Zengze Liu	Opportunity or Challenge? Exploring Strategies for the Symbiotic Integration of GAI and Science Education

PE2 | Physics Education | Room 304

Chair: Lei Bao

Time	Speaker	Presentation Title
3:50–4:20	Wangyi Xu	The Dynamic Process of Human-AI Collaboration among College Students in Solving Open-ended Mechanics Problems
4:20–4:50	Dazhen Tong	DeepSeek-Assisted Physics Instructional Design: An Empirical Study of Teaching Newton’s Third Law in a High School Setting
4:50–5:20	Lican Jin & Yechao Sun	Computational-Conceptual Disconnect in Signed-Quantity Reasoning
5:20–5:40	Zihao Yang	Two Energy Expressions Reflect Different Systems Understanding

Day 2 (Tuesday 23 June)

PE3 | Physics Education | Room 304

Chair: Lei Bao

Time	Speaker	Presentation Title
1:30–1:50	Dewei Ye	Assessment of Knowledge Integration In Student Learning of Galvanic Cell: An Interdisciplinary Approach Connecting Physics and Chemistry
1:50–2:10	Yi Ding	Three Forms of Enacted PCK in Physics Teaching: Transformations of Representation, Logical Structure, and Meaning of Physics Knowledge
2:10–2:30	Xiaxuan Cui	Hidden Risks and Optimization Schemes For Applying “Symmetry” In High School Physics Teaching in China
2:30–2:50	Zijing Fang	Large Language Models In Physics Education: Factors Shaping Uncertainty in Explaining Physics Problems
2:50–3:10	Jingyi Pang	Assessing Conceptual Understanding of Energy in Electrostatic Fields: A Conceptual Framework-based Study of Chinese High School Students
3:10–3:30	Yayun Gong	Facial Expression Recognition for Probing Students’ Emotional Engagement in Science Learning

PE4 | Physics Education | Room 304

Chair: Lei Bao

Time	Speaker	Presentation Title
3:50–4:10	Xianglong Shan	Research on Promoting Deep Learning In High School Physics Based On Complex Problems Situations
4:10–4:30	Shujing Wu	Comparative Analysis of the New Edition Grade 7 Science Textbooks: Evidence from LLM- and Human-based Evaluation
4:30–4:50	Bingqi Xue	Research on the Application of Virtual Simulation Technology in Physics Education
4:50–5:10	Lihao Ren	From Automated Scoring to Misconception Identification: Research Progress on Semantic Analysis Models in Physics Education
5:10–5:30	Apriel K Hodari	Achievement, Community, Transformation: How Travel Grants Impact Physics Careers in the Global South