

28th International Conference on Multimedia in Physics Teaching and Learning (MPTL'28)

Thursday 4 September 2025 - Saturday 6 September 2025

Scientific Programme

Multimedia and Artificial Intelligence in Personalized Physics Learning

Focuses on AI-driven adaptive learning tools and personalized teaching strategies in physics.

Mixed Reality for Enhanced Conceptual Understanding in Physics

Discusses the use of augmented and virtual reality to help students visualize and interact with abstract physics concepts.

Multimedia in AI-Enhanced Simulations and Modelling

Examines how AI-based simulations can improve the understanding of complex models in physics and facilitate deeper learning.

The Role of Multimedia in Mixed Reality Physics Labs

Looks at integrating multimedia content in MR labs to enrich experimental learning, combining real and virtual elements.

AI in Multimedia-Based Physics Assessment and Feedback

Explores how artificial intelligence can improve assessments and provide personalized, multimedia-based feedback in physics education.

Simulations and Modelling in Physics: Bridging Multimedia and AI

Focuses on multimedia tools for creating sophisticated simulations and models powered by AI to support physics teaching.

Mixed Reality as a Tool for Collaborative Learning in Physics

Explores how MR technologies facilitate collaborative multimedia environments where students can solve physics problems together, both onsite and remotely.

Challenges and Ethical Considerations in the Use of AI and MR in Physics Education

Investigates the ethical issues, accessibility concerns, and challenges in implementing AI and MR technologies in multimedia-based physics education.

Modern Equipment and Technology to Improve Physics Teaching and Learning

Discusses the integration of cutting-edge technology, like digital tools and sensors, in physical labs and classrooms to enhance student learning.

Visual Representations in Physics Education

Explores the role of diagrams, graphs, and animations in helping students understand complex physics concepts.

Game-Based Learning in Physics and Physics Education

Investigates how gamification and digital games can be used as tools for engaging students in physics learning.

Multimedia and Collaborative Learning in Physics

Focuses on how multimedia tools support group projects and collaboration, enhancing peer learning in physics education.

Simulations in Physics Teaching and Learning

Examines the role of computer simulations to model physical phenomena and teach abstract concepts in physics.

Multimedia in Teaching and Learning Quantum Physics

Dedicated to exploring how multimedia helps students grasp the complexities of quantum mechanics, from animations to interactive models.

Multimedia Tools for Developing Physics Problem-Solving Skills

Investigates how multimedia approaches (videos, animations, and interactive content) can help students develop stronger physics problem-solving abilities.

Virtual and Remote Labs in Physics Education

Discusses how multimedia technologies support the creation and implementation of virtual and remote labs for hands-on physics experimentation from anywhere.