



Contribution ID: 143

Type: **Oral presentations**

## **Does inquiry-based teaching make a difference? Results of the research project on wave optics (INVESTIGATE)**

*Wednesday 28 August 2024 11:10 (20 minutes)*

The results of the project, comparing the effectiveness of inquiry-based vs. lecture-based teaching of wave optics, will be presented. An inquiry-based teaching sequence, spanning eight 45-minute sessions, was designed and implemented. The sequence incorporates four investigative student experiments exploring interference, diffraction, and polarization of light, complemented by teacher demonstration experiments. The teaching sequence was implemented in six Croatian secondary school classes and compared with traditional lecture-based instruction in six control group classes from the same schools. Results of the Conceptual Survey on Wave Optics indicate that the experimental group outperformed the control group in four out of five conceptual areas.

### **How would you like to present your contribution?**

Live in Kraków (time slot to be allotted based on the programme)

### **Target education level**

Secondary

### **Category**

Formal Education

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**Session Classification:** Oral presentations

**Track Classification:** Evaluation and Assessment of Student Learning and Development