

GIREP-EPEC conference 2023 Physics learning promoting culture and addressing societal issues

Contribution ID: 66

Type: Oral presentation

## Investigating high school students' gaze patterns when learning with Feynman diagrams

*Tuesday 4 July 2023 12:00 (20 minutes)* 

Several research-based suggestions have been made on how concepts from particle physics can be taught to high school students. A frequently used subject-related representation within particle physics is the socalled Feynman diagram. However, very little is known about how this form of representation is perceived by students.

This project aims to design learning materials for 16-19-year-olds on Feynman diagrams so that they are conducive to learning concepts of elementary particle physics. We used an eye-tracking study to test the materials. The results give insights into the strategy development process of students when using this form of representation.

## How would you like to present your contribution?

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

## **Target education level (primary)**

Upper-secondary education

## Target education level (secondary, optional)

Primary author: DAHLKEMPER, Merten Nikolay (CERN)

**Co-authors:** KLEIN, Pascal (University of Göttingen); MUELLER, Andréas; Dr SCHMELING, Sascha (CERN); WIENER, Jeff (CERN)

Presenter: DAHLKEMPER, Merten Nikolay (CERN)

Session Classification: Innovative strategies at school

Track Classification: Contemporary physics and modern physics at school