



Contribution ID: 49

Type: **Oral presentations**

A new teaching-learning sequence of quantum physics via Michelson interferometer using the Dirac notation

Monday, August 26, 2024 1:20 PM (20 minutes)

There are many ways to introduce quantum mechanics to secondary school students. In the last decades two-state approaches became popular. These may have the disadvantage of being less compatible with traditional approaches (wave-particle duality) and thus not overlapping with the school curriculum. In this presentation we show a new way based on the single photon interpretation of Michelson interferometer that provides the possibility to give a two-state description that fits perfectly to the wave-particle duality, using the Dirac notation, trickily bypassing the complex phases.

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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Track Classification: Contemporary Physics, Modern Physics in Schools and Universities