



Contribution ID: 97

Type: **Oral presentation**

Developing an analytical framework to characterize physics teachers' approaches to the pedagogy of derivations

Monday 3 July 2023 16:00 (20 minutes)

We present a characterization of undergraduate physics teachers' approaches to the pedagogy of derivations. Six teachers were interviewed and to analyze the data, we are developing an analytical framework, comprising three categories: Algorithmic approach b) Representational approach and c) Model building approach. Analysis shows evidence of cohering clusters of practices and value systems. Based on this, we characterize teachers' approaches as leaning primarily towards one of the posited categories. This study is part of a larger project aimed at making the learning of derivations more meaningful and creating a smooth transition from physics derivations to computational modeling and machine learning.

How would you like to present your contribution?

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

Target education level (primary)

University education

Target education level (secondary, optional)

In-service teacher education

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Session Classification: Innovative strategies at University

Track Classification: Innovative strategies and pathways to improve physics education at university