4th World Conference on Physics Education

EMBRACING CHANGES TOGETHER

Contribution ID: **316** Type: **Poster**

Advanced Modeling, Scientific Computing & Data Analysis with Open SageMath

Thursday 29 August 2024 12:30 (10 minutes)

Our contribution addresses the computational challenges in physics and STEM education posed by advanced models. We introduce SageMath, a Python-based CAS software that integrates numerous open-source packages. We illustrate two pivotal modeling features: the desolve_odeint procedure for fast and accurate numerical solutions of differential equations and the LMFIT library for fitting their parameters directly with experimental data. As a professional science tool, SageMath demonstrates potential in education, enabling the model of complex real-world situations and bridging the gap between professional and educational computational tools.

How would you like to present your contribution?

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

Target education level

University

Category

Formal Education

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